

HACKTOBER



HACKERBOXES CAME TO PARC! READ ABOUT THE OCTOBER SURPRISE INSIDE.

SAY NO TO CHANGING THE DATE

Club Meeting 7:30pm
2 November 2016
Carlsbad Safety Center, 2560
Orion Way, Carlsbad

Operating Day at Fry's!
6 November 2016

PARC Board of Directors
Meeting 7pm
9 November 2016
14322 Pomerado Road, Poway,
CA 92064

STEAM Maker Fest at Del
Mar Fairgrounds!
3 December 2016



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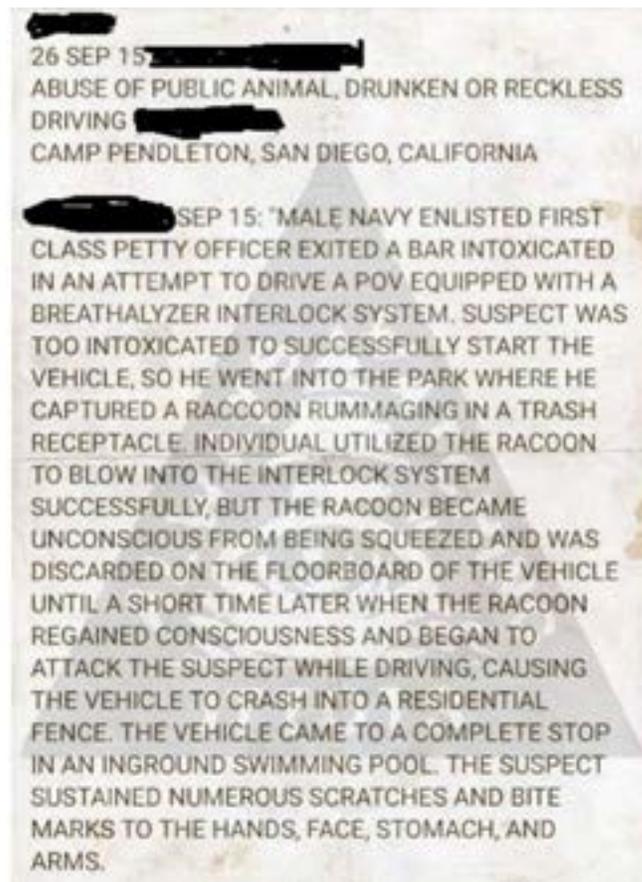
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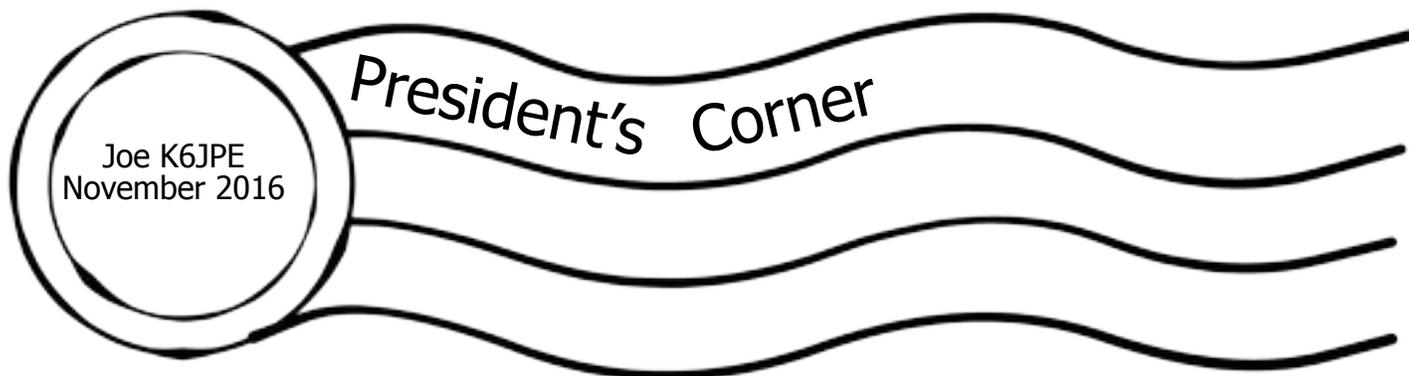


DO NOT USE RACCOON TO TRICK BREATHALYZER.

Club meeting minutes can be found on our website at

http://palomararc.org/about_parc.htm

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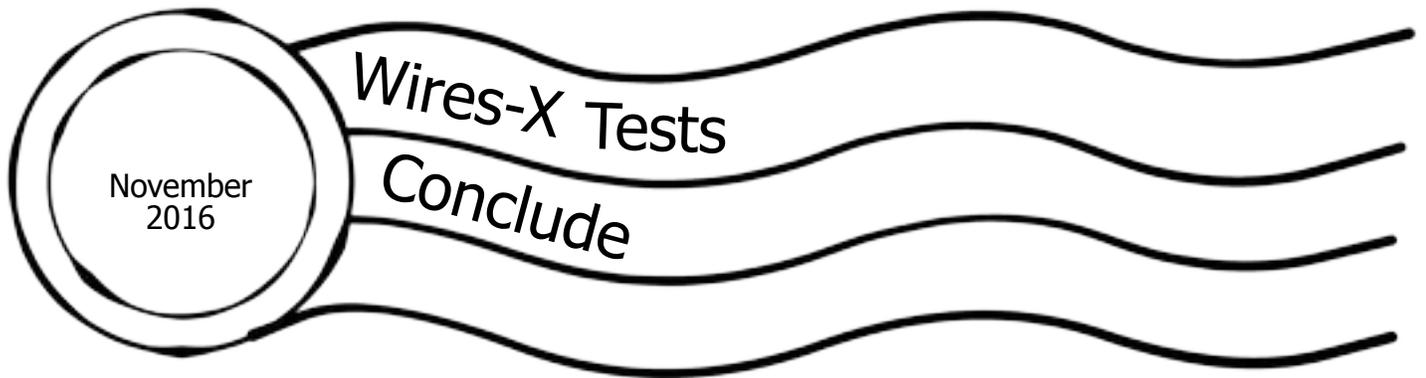
Happy Halloween everyone! I hope we all have a fun and safe time this weekend. Keep safety in mind as your young ones go out gathering candy. For the teens who may have their license, send an HT with if you aren't going yourself so they can check back in with you from time to time!

We have a ton of fun stuff coming up in the near future, look for updates from your board about the controller, a trip to the mountain this week, exciting developments in our Amateur Television system, MESH node, and more!

Operating Day: Palomar amateur radio club would like to invite you to Operating Day at Fry's San Marcos store Sunday 9:00 to 4:00 with set up about 7:00 am. The purpose is to demonstrate ham radio to the public. So bring your go kits, portable stations, qrp rigs what every you want. Should be a nice day to have fun with the public and maybe get a few new people interested in ham radio. Please pass the word and let me know if you can come out for the day. The San Diego store and the clubs down south are doing the same thing on the same day.

Contact the board or the coordinator, Tom K6RCW, for more information.

Joe Peterson K6JPE



Thanks to all volunteers that helped test the KK600Z Wires-X node!
 Tests have successfully concluded. Node has been returned to the owner with our thanks.



KK600Z Wires-X QSL Card for PARC Experiments



A QSL Card that we've received over Wires-X



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Merit W6NQ • Gary K6CAQ • Steve K6NDG • Rob WA6GYG • Doug K6DRA

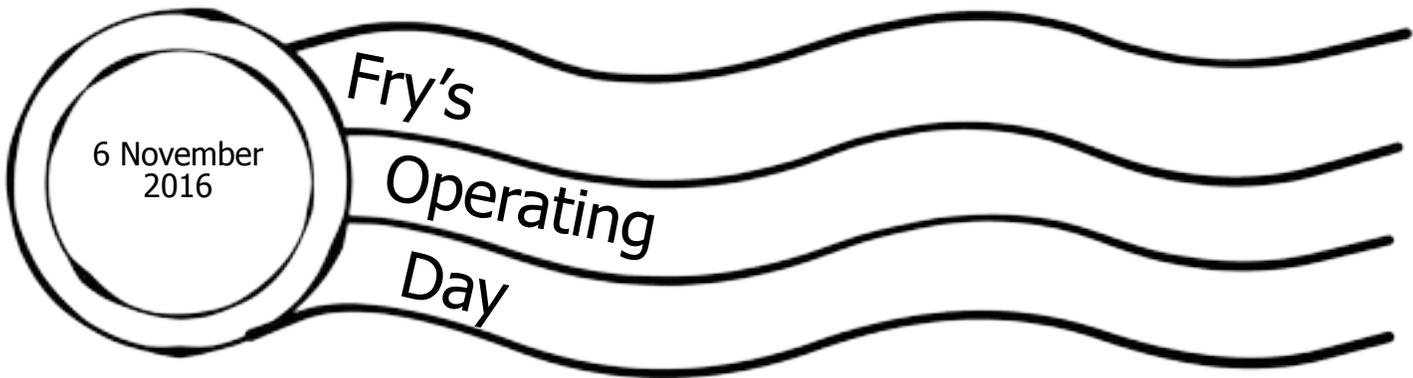
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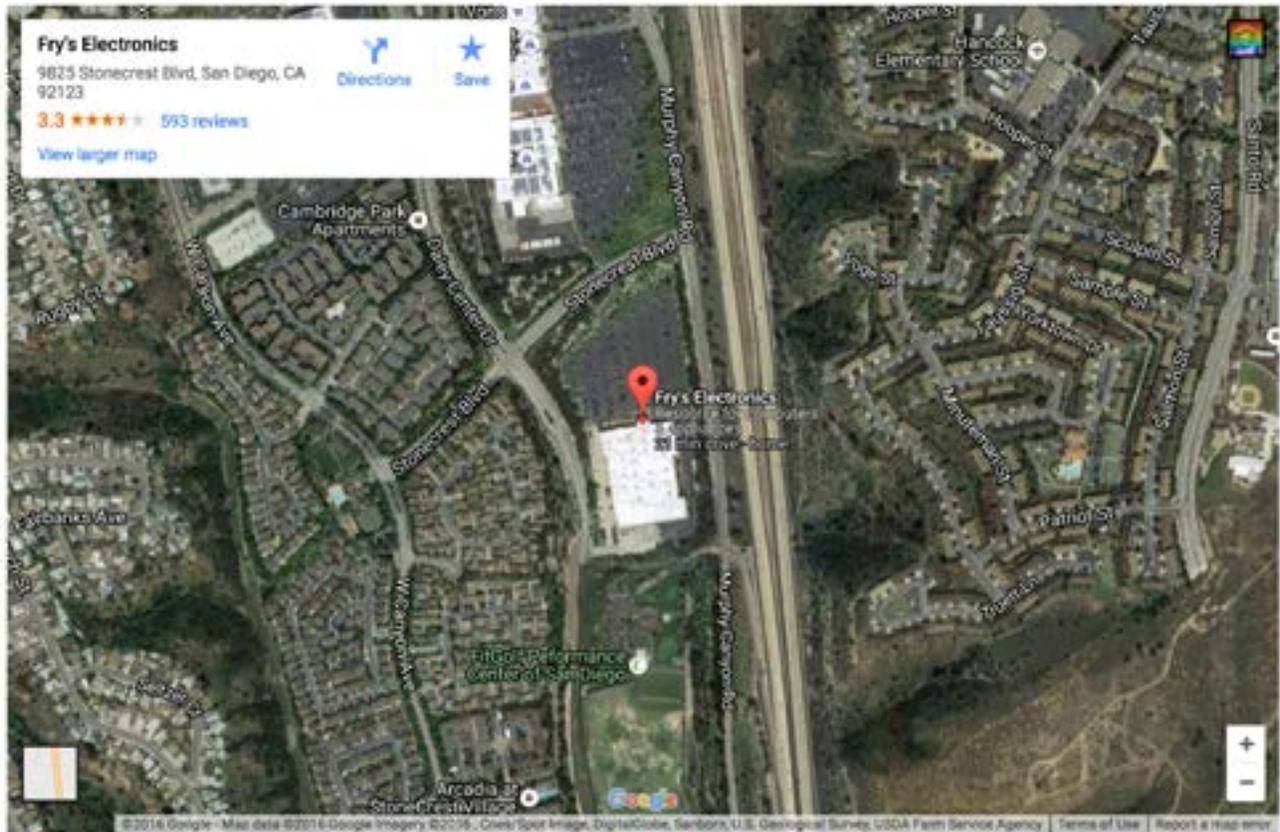
FRY'S OPERATING DAY - SD

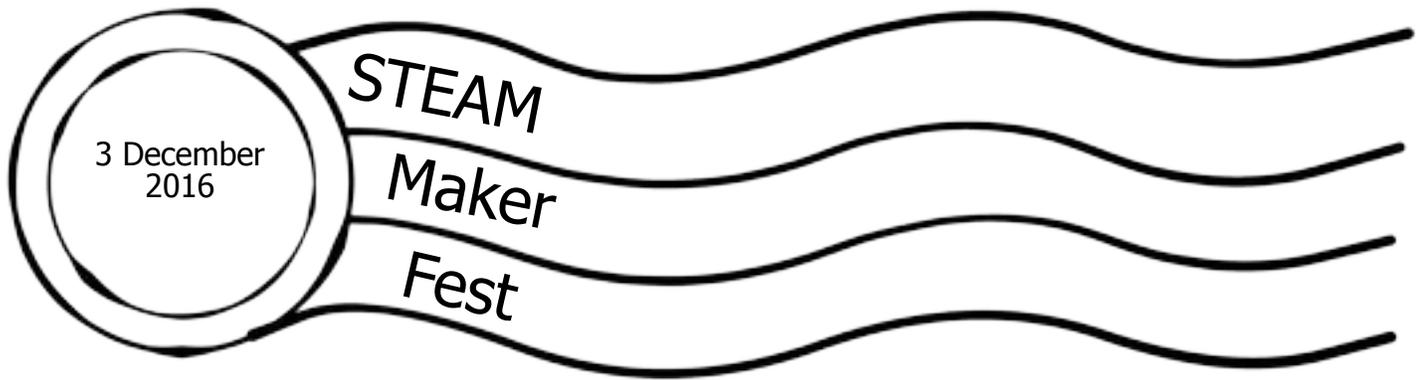
SUNDAY, November 6th, 2016

9825 Stonecrest Blvd, San Diego, CA 92123 (off Aero Dr.)

Setup at 7am - Public Operations by 9am - Until 4pm (+/-)

Come on and test out your To-Go Box, antennas, etc. Plus, put a face with the Ham friends that you talk with daily. *Come support attending clubs and Ham organizations and help acquaint the public with Amateur Radio.*





December 3rd, 2016

Science, Technology, Engineering, Art & Mathematics

STEAM Maker Festival is in 36 days, 1 hour, 22 minutes, 29 seconds



STEAM Maker Festival is a collaborative venue for students, educators and professionals within our community and industry to demonstrate programs, projects, practices and resources that enrich STEAM education. The STEAM Maker Festival is an opportunity for members of our community to come out and display their commitment to the outreach of STEAM programs and to show that SCIENCE and TECHNOLOGY can impact learning in fun and exciting ways.

STEAM Maker Festival unites San Diego Sponsors, Foundations, Schools, Parents, Students and Community Partners for a grand hands-on STEAM experience.

100% of all proceeds and sponsorship go directly to allowing us to provide free events, programs and activities to San Diego County schools, including all our STEAM Challenges which welcome hundreds of participants from 200+ schools, in addition to over 6000+ attendees, all from DIVERSE socioeconomic backgrounds.

Come share the day with 42 School Districts, over 200 participating schools, 100+ student teams participating in STEAM Challenges and 26+ industry/tech company demonstrations and activities.

The San Diego STEAM Maker Festival.

There is no other festival like it.



KD6AKT Estate Items For Sale

I am selling the following items from the radio estate of KD6AKT. All proceeds will go to Ted's widow Donna. All sales will be cash (greenbacks) only and will be final. Since I did not own this equipment I do not have details as to any problems that any may have. I tested what I could and am providing a description of what I have found. I cannot accept responsibility for any problems that may be discovered subsequent to the purchase. All pricing is nonnegotiable at this time.

Jim W6YXY 760-758-7655

TS-570DG. 160 – 10 mtr transceiver. While this radio is marked TS-570D, it includes the 3 additional CW DSP filters which makes it a DG model. Included is a Heil traveler headset, power cord, instruction and service manuals and original packing boxes. Does not include a microphone. Very clean. 9 out of 10 in appearance. Receives and transmits ok. Will demonstrate for you if you pick it up at my house. \$500.00

TS-440S 160 – 10 mtr transceiver with internal antenna tuner. Appears to be in good shape. 7 out of 10 in appearance. A few marks on the top of the case. Full power output on all bands. No manual. Includes microphone and power cord. Also includes original boxes. \$400.00 Astron RS-35M 13.8 VDC power supply. Looks good. Both Voltage and Amp meters on the front. In original box. \$90.

MFJ-259 Antenna Analyzer (Original) with wall wart and numerous RF connectors and adaptors. Tested using the wall wart and seems to work fine. Missing 2 screws on each side. It looks like the unit was modified to use 9 volt batteries. The antenna connector has been replaced. Includes manual. Probably a 5 out of 10 in appearance. \$100.

Coax Box. It's a box of coax of different lengths. 100 ft RG-8X, 43 ft of RG8 mini, 62 ft of RG8 mini, 71 ft of RG8/U. Also included is a Kenwood LF-30 Low pass filter and MFJ-812B SWR bridge which covers 144 – 220 MHz. This is used coax but it still looks pretty good. All cables have PL-259 connectors on each end but some look like they should be replaced \$50.00.

TM-733 Dual Band VHF/UHF transceiver. Includes microphone, Diamond MX72D duplexer, guessing 35 – 50 feet of RG8 mini coax with a connector at one end, speaker, manual and Astron RS-7A power supply. 7 out of 10 in appearance. \$225.

TM-261 2 meter mobile radio. Includes box, book, short power cord, microphone and mobile bracket. 7 out of 10. \$80.

Daiwa CN 101L 1.8 – 150 MHz SWR/Power meter. Does not have wall wart for meter lamp. Tested and Power out appears to be accurate. SWR reading seems relatively accurate. \$35.

RadioShack Pro-49 hand held scanner with Wall wart, antenna and book. Not tested. \$10.

D-104 Silver Eagle Mic. Has connector that fits a Kenwood although I did not test this microphone. Also has 3 switches on it, but their functions are unknown. It has a hole in the bottom for the gain pot on the amplifier board but I do not believe it has the board. \$30.

2 VHF/UHF hand held radios. Yaesu FT-530 and Alinco DJ-580T. The Yaesu includes the book, antenna, charger and box. The Alinco includes a spkr mic, charger, antenna and book. Both worked on a transmit/receive test. The Alinco has a large, what appears to be, aftermarket heatsink on the back of the radio. Both are showing their age but could make decent radios for APRS. I have no idea of the condition of the batteries. \$40 for everything.

FT-127RA. Yaesu memorizer for 220 MHz. Transmits and receives although there appears to be an intermittent problem with the TX switch in the microphone. Has COMM Spec PL board with dip switches in the top of the radio. Includes a speaker and book. The knob to the left of the tuning knob is loose. \$30.

Packet Box. Grab bag. Includes Kantronics KPC-3, MFJ 1272M, Kantronics board dated 1993,

BuxComm Rascal GLX Mark V (PSK 31?), MFJ-1270C, 3 Baypac BP-1, 1 Baypac BP-2m, various software and cables and a plastic container containing dozens of switches (maybe a sample kit). \$30.

Power Pole connectors. 3 Red and 5 Black 75 AMP, 10 sets of 45 amp, 10 sets 15 amp, 8 sets 30 amp, 30 amp fuse holder, 4 25 amp fuses. \$20.

2 Kenwood microphones with modular connectors for VHF or UHF radios. \$15 for both.

S9V31 Antenna. \$40.

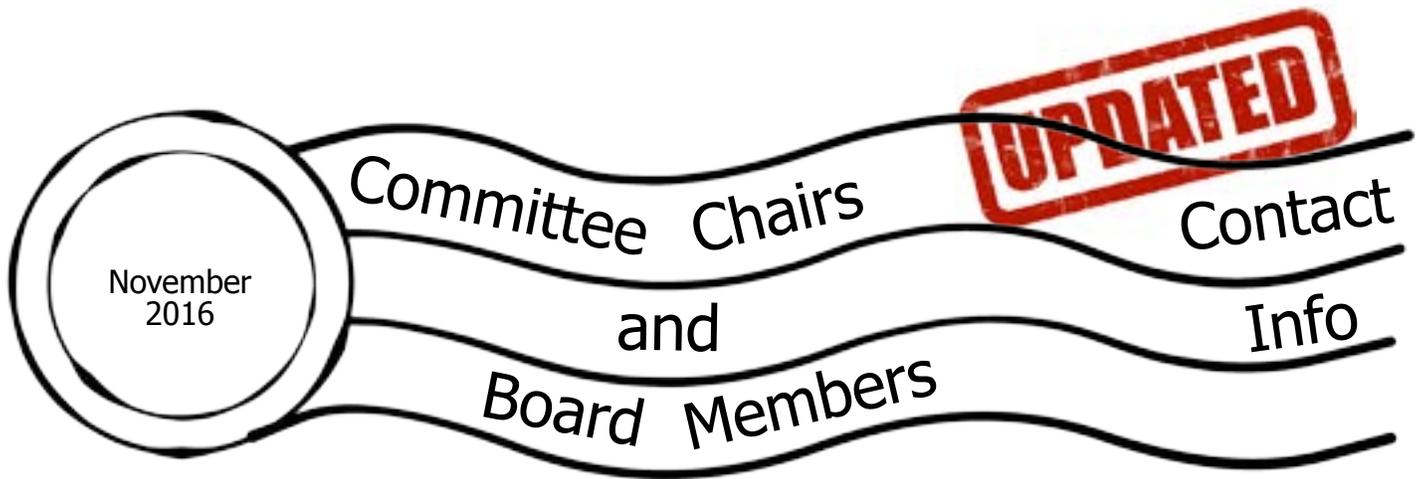
Advertisements are free for members

Have items that need to find a new home? Advertise here!
Send your ads to scope@palomararc.org

Club Members ONLY!
PARC has a tube bank that includes many 6 & 12 volt receiving tubes (and some transmitting types) for use by club members to repair their own personal equipment. Not for commercial use or resale. If we have your requests, we will pre-check the tubes and deliver them to you at the next club meeting.

Contact John WB6IQS WB6IQS@att.net

ADVERTISEMENTS



Current Board of Directors

President	Joe Peterson K6JPE	(619) 630-8283
Vice President	Michael Gottlieb KB6D	(858) 212-4646 (text welcome)
Treasurer	Tom Ellett W0NI	(858) 546-1148
Secretary	Sandy Pratt KK6EED	(858) 748-2611
Director #1	Kevin Walsh KK6FRK	(858) 722-5069 (text welcome)
Director #2	John Walker AC7GK	(949) 212-5533
Membership Chair	Glen Christensen AI6RR	(858) 735-1144
Repeater Technical Chair	Mark Raptis KF6WTN	
Scope Editor	Michelle Thompson W5NYV	(858) 229-3399 (text welcome)

Not on the Board

Repeater Site Chair Mark Raptis KF6WTN (acting)

The board members might have callsign@amsat.org mail aliases.

Committee Chairs

Boy Scouts	Michael Palugod	mpalugod@yahoo.com
Digital ATV	open, group forming	atv@palomararc.org
EchoLink	Bernie Lafreniere N6FN	N6FN@niftyaccessories.com
HF Remote	HF Remote SIG	hfremote@palomararc.org
mesh networking	open, group forming	mesh@palomararc.org
Operating Day	Tom Martin K6RCW	k6rcw@amsat.org
SANDARC Representative	John Walker AC7GK	ac7gkjohn@gmail.com
SANDARC Representative	Paul Williamson KB5MU	kb5mu@amsat.org
SD Microwave Group Liaison	Kerry Banke N6IZW	kbanke@sbcglobal.net





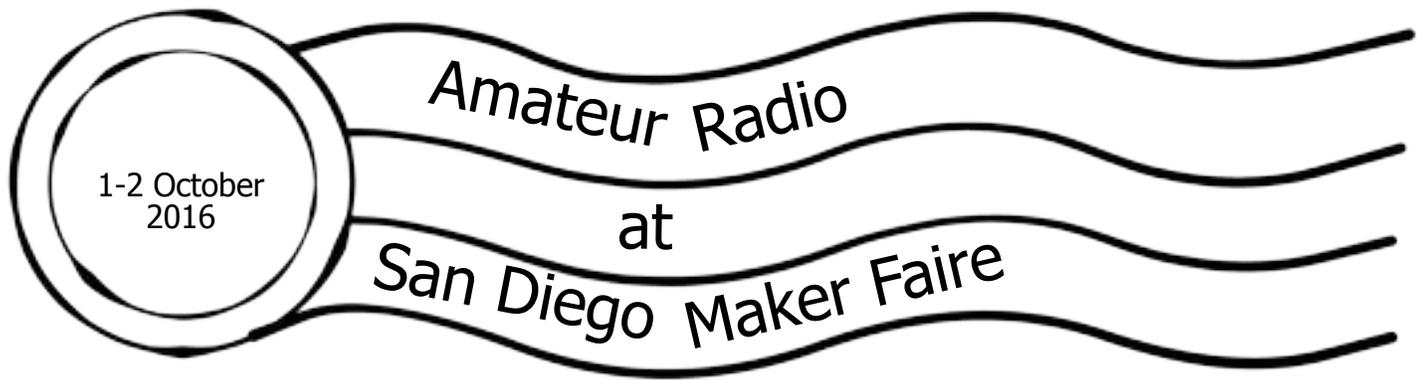
Pat Bunsold WA6MHZ (left) is visited by Michael Gottlieb KB6D at the second annual San Diego Hamfest.

2017 San Diego Hamfest dates have been announced. October 07, 2017 at Lakeside Rodeo Grounds.

*****Clubs, start planning your free booth.*****

More information to follow, watch the web site at:

<http://www.sdhamfest.org>



Hi all,

I'd have to say that thanks to all of you our 2016 SDMG MakerFaire booth "Microwaves + Light Experiments" was a great success. Even though Maritza wasn't able to make it and I screwed up on my email to Dan keeping him from helping, we did great. Saturday it was Drew, Dennis and me all day. Lots of activity right up to closing time. Sunday it was Steve and his son and me until early afternoon and then me for the last part of the day until Drew and kids came in around 5:30 to help with packing up the equipment and hoofing it back to my truck. Again activity up until closing at 6:00.

We went through many hundreds of stickers over the two days and ran out of two types by the end of Sunday. So we had the "invisible Light Hunter" activity which was an Infrared transmitter located inside the same room as our booth. We had three hand held "Hunter" receivers that had a green LED that blinked when the receiver was pointed in the right direction.

The objective was to find the transmitter which had a picture on it matching that on the Hunter unit. Then we had the 10 GHz microwave "Hidden Spy Radio" transmitter that was a couple of rooms removed from our booth. I called that the "Adult" version of hunting. Typically we get them to try the "Invisible Light Hunter" first and once hooked on that they were eager for the harder "Hidden Spy Radio Transmitter" activity. Not everyone found the spy radio transmitter but many did both kids and adults alike. The spy radio transmitter was hidden inside a large blue drinking cup with a matching picture like the receiver units. For both activities we'd encourage a race between family members to see who was the best.

We also had our "Listening to Light" which had a photo sensor connected to a speaker/amplifier which acted like a "light microphone" as Steve put it. We had a flashlight shining through a fan which sounded like a siren when the J38 morse code key Drew brought was pushed powering up the fan. We listened to an IR remote control and an led connected to an MP3 player which surprised many people when a steamboat calliope tune was heard. We also had a file and a metal spike that were used to close the circuit to an LED strip when touched together making a scratching sound. When ever we saw someone with one of blinking light badges that they had made at the learn to solder station, we'd ask if they wanted to listen their badge. The whines and clicks from the badge light would bring smiles.

The results are that we have been approached by the Fleet Science Museum to see if we might hold a session to instruct teachers on how to do the Listening to light activity. Also a group that does home schooling is interested in that as well. We'll see how that all plays out.

Steve made mention of having something like this at a birthday party. The equipment is always available for loan.

Thanks again all for volunteering and supporting our San Diego Microwave Group activity.

-Kerry N6IZW



About our
Scholars!

SPONSORED BY PARC

PARC Student Scholarship

The Palomar Amateur Radio Club is creating at least one amateur radio scholarship for San Diego students to promote our goal of fostering our hobby and motivating young hams.

QST has three pages of the pictures of the recipients of the 2016 ARRL scholarships. Only two went to a California student! The survival of The Amateur Radio Service depends on us. If we do not act, who will succeed us? Our youth are our future.

To that end we are looking for funding sources especially corporate ones. We have two letters requesting scholarship funds from companies and corporations: one that is general, and one where we can use the name of the referring employee. Either one could be addressed to a specific person in the company.

Club members have indicated that we have members who work at companies that could be looking for a charitable tax contribution donation. If you work for one of these companies and you would like to come forward with a contact person, please contact us at board@palomararc.org with a possible contact person. We can send the letter we have created or if you are so inclined, you could personally deliver it.

Looking For High School Seniors

Calling for Applicants for the 2017 ARRL Foundation scholarship program. Applications will be accepted between midnight, October 1, 2016 and 11:59 PM Eastern Standard Time January 31, 2017. Transcripts must be received by Thursday, February 16, 2017.

The scholarship descriptions are all on line where you will find a brief summary of the terms and conditions required by the donors of the scholarships or established by the ARRL Foundation Board of Directors. (According to the ARRL Foundation, the brief descriptions may not include complete selection criteria and are subject to change without notice.)

There are 84 scholarships. (Some have insufficient funds and some are inactive.)

Only 20 have no geographical restrictions. 2 are for California students.

Please go to:

<http://www.arrl.org/the-arrl-foundation>
then choose Scholarship Program from the left menu
<http://www.arrl.org/scholarship-program>
then you can review the details for each one
<http://www.arrl.org/scholarship-descriptions>

We hope to see your name and picture in QST this time next year!

Club Financial Update

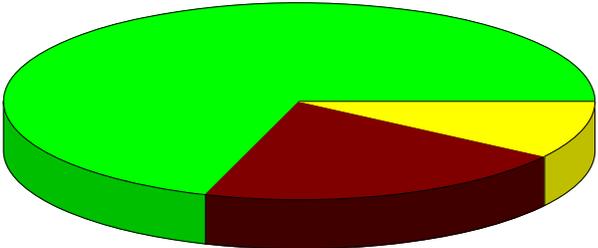
15 August 2016

Income and Expense by Month
August 2016



Expense Summary
August 2016

Equipment Storage	\$ 245.00
Rptr Electric	72.72
Rptr Phone	32.20
Total	\$349.92



By Account

Reported ATV Status

November
2016

ATV system renovations have begun!
Contact board@palomararc.org if you
want to be involved.

At a minimum, upgrades to include
DVB-T transmission, ATN linking,
and substantially reduced cost and
complexity to enjoy this mode.

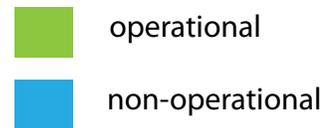
PARC
ATV
System

915 MHz WBFM in
5.8 MHz audio subcarrier

146.415
79.7
intercom

1241.25 MHz VSB out
NTSC standard

2441.5 MHz WBFM in
6.0 MHz audio subcarrier

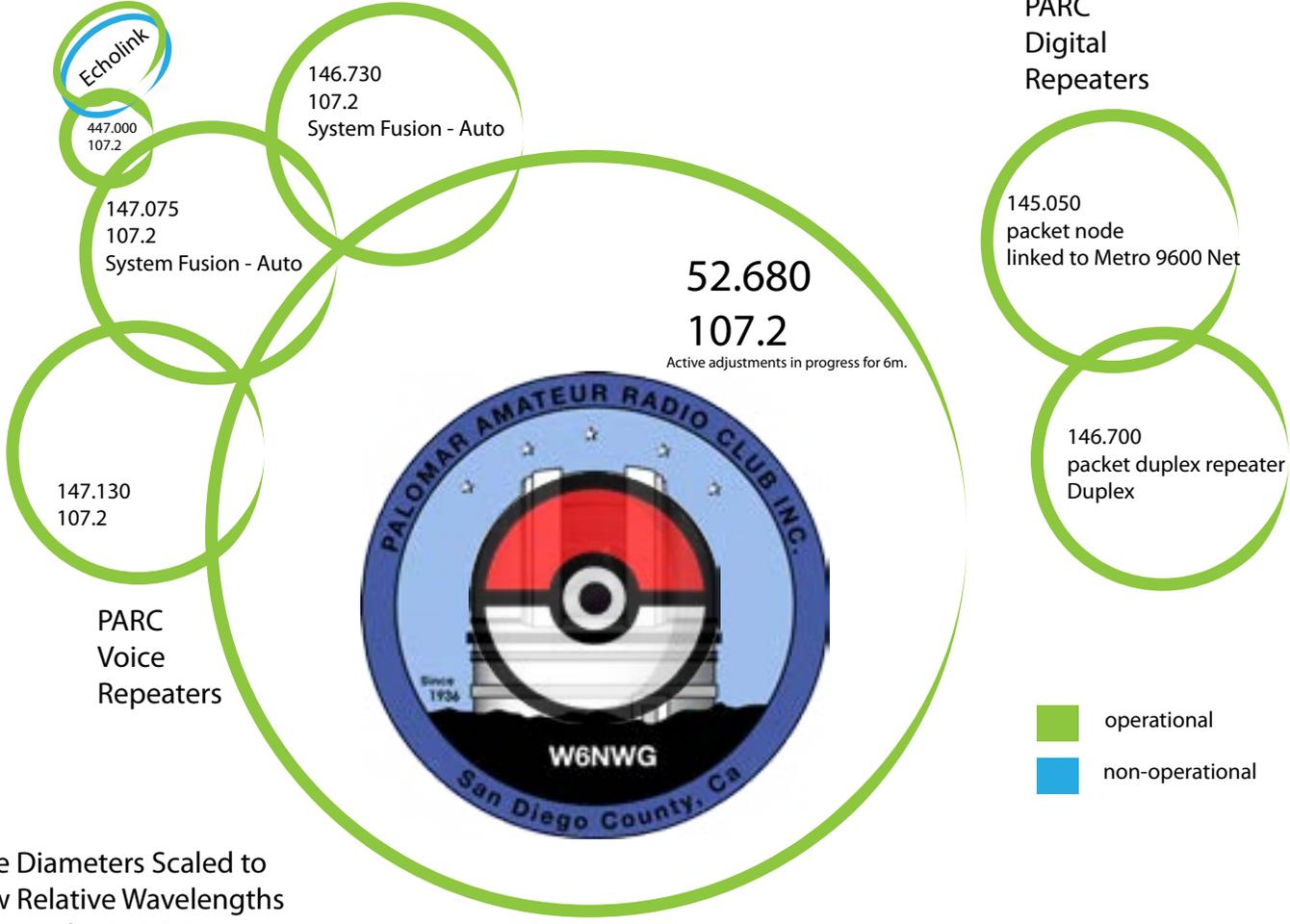


Circle Diameters Scaled to
Show Relative Wavelengths
Between Equipment

Reported Repeater Status

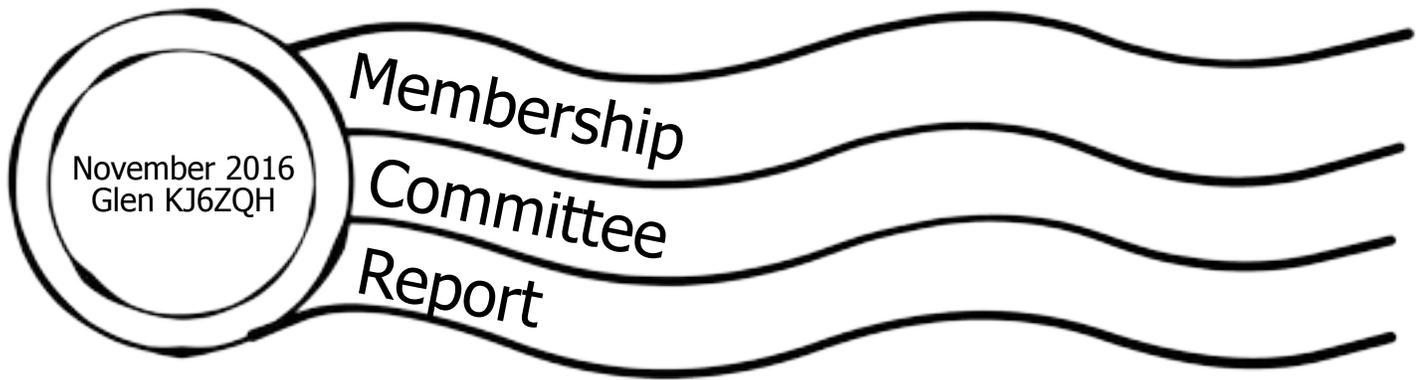
November 2016

Active repairs in progress for Echolink.



Circle Diameters Scaled to Show Relative Wavelengths Between the PARC Repeaters

The 147.075 repeater has been adjusted to System Fusion Auto mode.



From the Membership Table

You can check the status of your membership 24/7 at [Member List](#) (or go to the club's website and navigate to Join and click on "here" at the top of the page. Enter your call sign into the box and click the "Look up my membership status now" button.

To renew your membership or extend your membership, fill in the form on the Join page. Make sure you select the correct value from each of the drop-down menus (Type of Membership, How many years, I'm an ARRL Member, Newsletter option and License Class). If you want to receive an email when your membership is coming due for renewal, please make sure that I have a valid email address for you. To do that, please send an email to

Membership@palomarc.org.



PARC Helps San Diego Boy Scouts Get On The Air With JOTA

On October 15, 2016, more than a million Scouts worldwide (over 17,000 stations in over 150 countries registered) got on the air in the 59th Annual Jamboree On The Air (JOTA). Each year on the third weekend of October, Scouting's largest event in the world happens. And, the ARRL and the BSA work together to promote this worldwide. Locally, members of the Palomar Amateur Radio Club (PARC) helped lead to make this a huge success for Boy Scouts in San Diego.

PARC Director, Kevin Walsh KK6FRK, has chaired this event for the past years and led the way again this year. And, after successfully leading PARC's 2016 Field Day, Brian Tagg AG6CF, was picked as Net Control to coordinate the 5 radio stations providing HF, VHF, and UHF opportunities for Scouts to experience amateur radio. A team from the Southwestern REACT of San Diego set up a VHF station for Scouts to talk with other REACT members across San Diego. Bruce Krypton KG6IYN and Dave Kaltenborn K8KBC provided an HF station operating on 20m and 40m that connected San Diego

Scouts to other Scouts in other states including Hawaii and Wyoming. They represented San Diego ARES and ARRL as well as the Six Shooters Amateur Radio Club, which helped our Scouts understand San Diego is very active in amateur radio. Jim Cooper NE6O wowed Scouts with his eye-catching hex beam and mag-loop antennas. And, Ed Boss KJ6LOX, who is Net Control for the weekly Boy Scout net on the PARC 146.73 repeater, took a strong leadership role in organizing this then also served remotely as "the other end of the call" for Scouts to talk with. Ed's communications abilities also served the team well by confirming that their radio gear was deployed and functioning properly.



This JOTA activity at the San Diego Boy Scout headquarters was part of a larger STEM Faire Day. Scouts find today's technology exciting and Boy Scouts STEM and JOTA activities are excellent opportunities for Scouts to get introduced to this. Over 120 Scouts registered this year. And, all were

invited to talk on amateur radio at our 5 stations. Also, as part of the STEAM Faire Day, 2 Radio Merit Badge classes were held which introduced basic concepts of radio to 25 Scouts. Getting on the air was one of the merit badge requirements where the 5 radio stations were key. But, the JOTA team helped all of the 120+ youth there get introduced to amateur radio with some information and with their first experience in talking on the radio.

The BSA San Diego-Imperial Boy Scout Council recognizes and thanks Kevin, Brian, Ed, Bruce, Dave, Layne, and the entire 2016 JOTA Staff for all their efforts, time, and expertise to help our local youth.

Thanks,

Mike, N6PIH



2016 JOTA Patch, earned by participating boy scouts. Congratulations to all involved!

20 October 2016
Bernie Lafreniere
N6FN

Repeater Controller Status

As you may recall from prior reports, since the new Yaesu DR-1X repeaters as delivered by Yaesu are not compatible with EchoLink or IRLP repeater linking requirements, the EchoLink project morphed into evaluating and selecting commercially available repeater controllers to solve the problem, as well as address a number of other more general repeater control related issues.

In early June, the board approved the purchase of a controller and necessary accessory items to upgrade our three DR-1X repeaters on the mountain. All material has been purchased, cable assemblies and individual DC power control relay boxes have been built. There was a lot of fabrication required for outfitting two controllers and four repeaters. Thankfully John Kuivinen, WB6IQS volunteered to assist and fabricated three of the larger cable assemblies while I took care of the other cables and the DC power relay boxes.

At this point we have two working controllers with the objective of getting one controller and a Yaesu repeater configuration up one the mountain for on-site testing. I initially configured a system for installation on the mountain, expecting to put it up on the mountain before the second week in August. However old Murphy reared his ugly head.

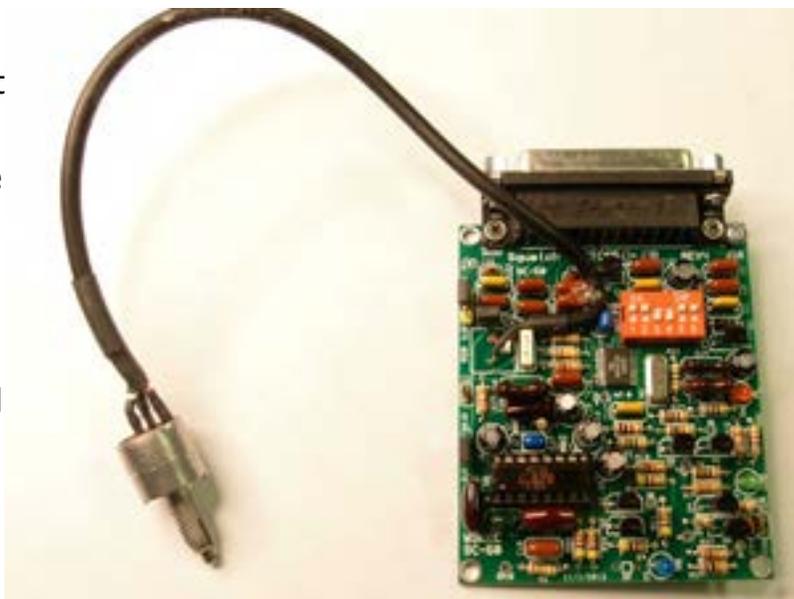
As I was testing controller commands and repeater functionality I noticed that the Yaesu repeater we targeted for installation on the mountain had some distortion in the transmitted audio. At first I was not too concerned figuring that once I finished command testing, that the distortion would go away when I set the deviation levels and other adjustments within the controller. Hmm – it did not work out that way. After alignment, the distortion was still there.

Since we have one controller and repeater that is working fine, something had to be different with this one. At first I thought there might have been some crosstalk getting into the extension of the squelch knob off of the add-in SC-50 board to the rear panel of the repeater, from a configuration standpoint that was the only difference from the system that was working.

But after a lot of troubleshooting I finally determined the revised wiring was not the problem. The repeater's discriminator output signal was distorted. The discriminator signal is used to get audio received by the repeater into the controller. Then after some processing in the controller it is fed back to the repeater's transmit signal input.

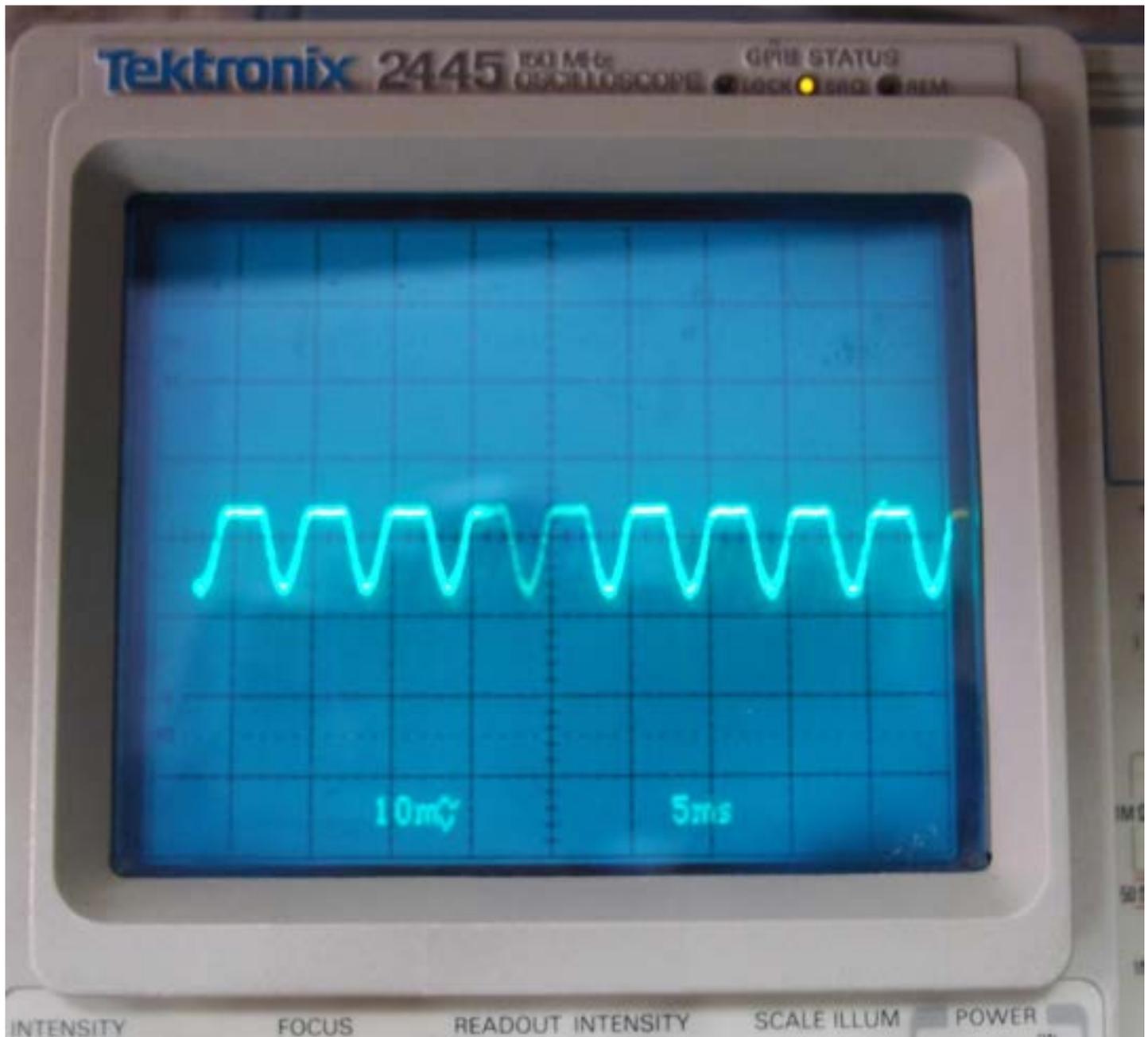
At right is a picture of the modified SC-50 board.

Because the SC-50 board is mounted internal to the repeater, I had removed the trimmer potentiometer from the board and ran a shielded cable to a mil-spec potentiometer that is mounted through the repeater's rear panel. Otherwise it would be a real pain to remove the repeater's cover anytime



someone wanted to re-adjust the squelch.

Here is a picture of what the discriminator signal looked like when an audio tone was being received. Note the flat-topping of the sine wave.



This where I ran out of time. I had hoped to get the repeater installed before I took two months off. I had a couple of backpack trips scheduled for the high Sierras. Plus, since it was our 50th wedding anniversary my wife and I had planned a couple of trips to Utah and Colorado. Consequently, between early August and the end of September, I was only at home about 5 days total in between those trips.

Since getting back to work on this project in early October I traced the discriminator problem to an emitter follower buffer circuit inside the receiver module. Unfortunately, the actual circuit uses extremely miniaturized components which I don't have the tools for reworking. Mark Raptis, KF6WTN has access to the right kind of equipment where he works. So, I removed the module from the repeater and gave him a bunch of marked up schematics and parts layout drawings identifying where the parts are located. When Mark has a chance, he is going to inspect and perhaps replace a few components that we have identified as potential culprits.

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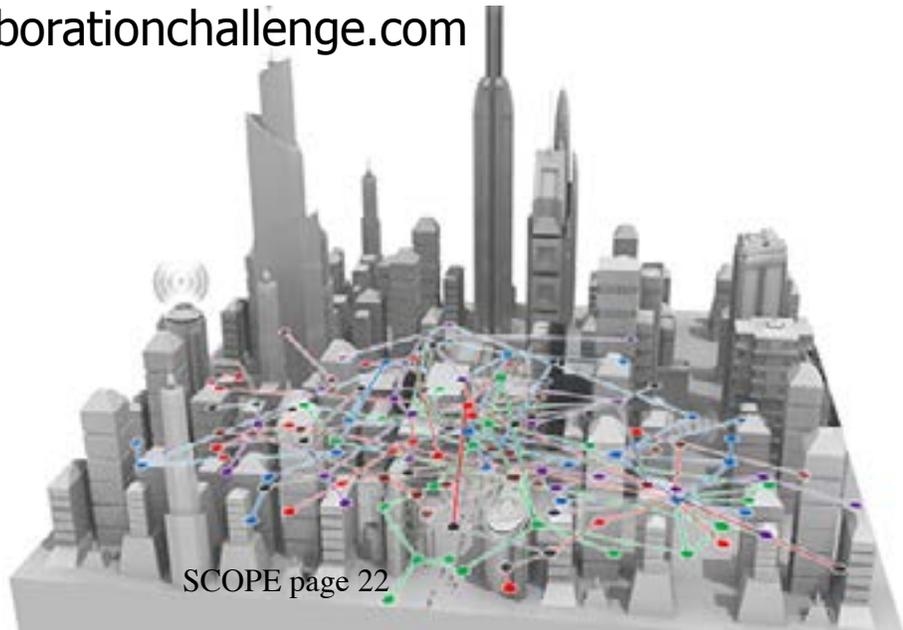
The world's first collaborative machine-intelligence competition to overcome spectrum scarcity.

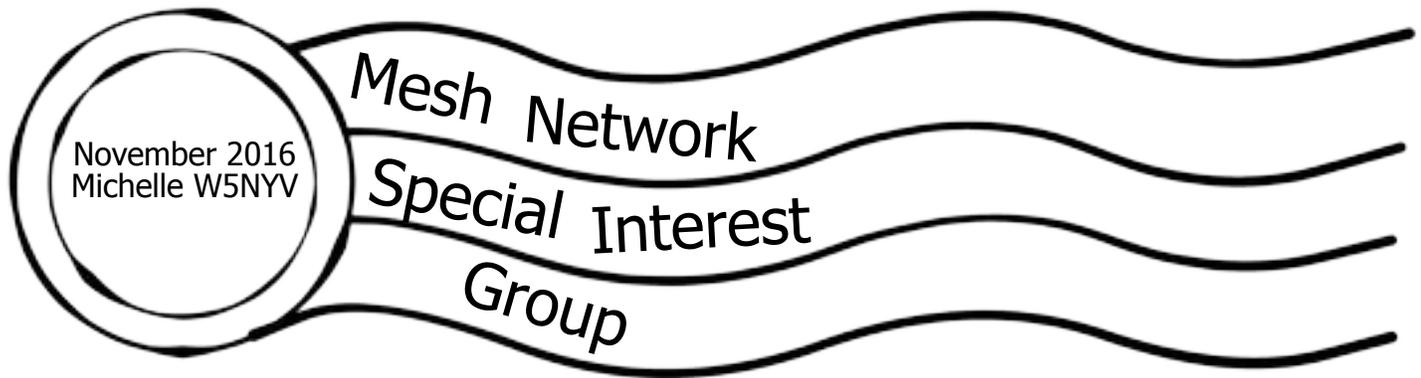
1ST PLACE
\$2,000,000

2ND PLACE
\$1,000,000

3RD PLACE
\$750,000

<https://spectrumcollaborationchallenge.com>





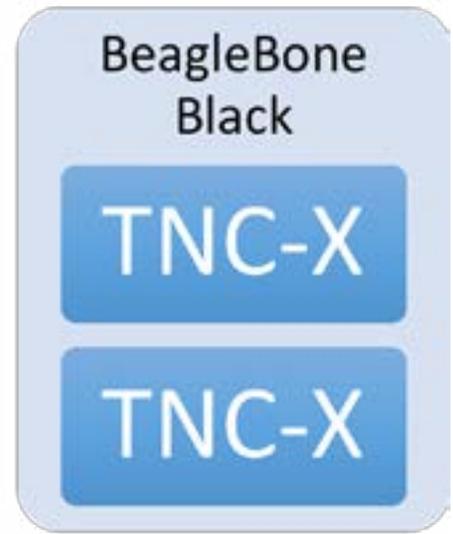
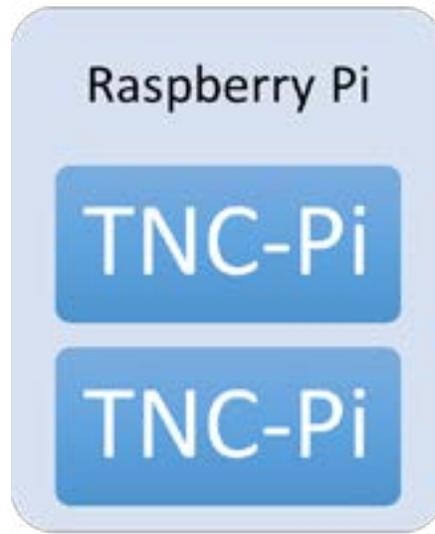
We have some additional hardware to experiment with!

The TNC-pi is the Raspberry Pi version of the TNC-X.

<http://www.tnc-x.com/>

The TNX-X is a terminal node controller.

"TNC-Pi is a special version of TNC-X designed to interface directly with the Raspberry Pi computer. It can connect to the Pi either via the Pi's serial port, or via the I2C protocol. In the latter case, a single Pi can support multiple TNC-Pi's at the same time, since each TNC-Pi can be given a unique I2C address."



WHAT DO WE HAVE IN PROGRESS SO FAR? TWO RASPBERRY PI NODES, TWO BEAGLEBONE BLACK NODES, TWO 70CM LoRA MODULES, A SET OF 2.4GHZ AND 5GHZ UBIQUITY MODEMS, AND AN AREDN NODE CURRENTLY IN STORAGE THAT WILL BE REDEPLOYED AS SOON AS PRACTICAL.

We have a Raspberry Pi TNC-X on a Raspberry Pi 3 tested and built, and that one went to Bob KM6BMX. Bob took it to prepare an SD card for the Raspberry Pi 3, making a cable for a handheld, and seeing what functions he can find that we can deploy and experiment with. He reported back that he successfully loaded the latest Raspian OS onto a micro-SD card and booted the Raspberry Pi.

He planned to configure 1 micro-SD card to run as a "TARPN" packet node. Here is their URL: http://tarpn.net/t/packet_radio_networking.html

He will order some spare Baofeng speaker/microphones that I can repurpose as data cables. He may also purchase a pair of the older Baofeng UV-82 or UV-82L HT radios (~ \$30 each) for dedicated use with the packet node(s).

Initial testing will involve these applications:

1. Packet node using PARC repeater on 146.700 MHz (-)
2. Packet node using PARC digipeater(?)/"Metro" net on 145.050 MHz
3. APRS digipeater using simplex 144.390 MHz

Bob believes that once we get a couple of nodes operational, we can then work on bringing them together into an ad-hoc "mesh". How to visualize? Live web update? There's some ideas out there!

We have a second TNC-pi kit. I put the call out for a volunteer to build it, and Jim Campbell stepped right up and took it on. A Raspberry Pi 3 is available for this TNC-pi, and I have printed out a second case to protect this set of electronics.

OK so what can be done with the TNC-Pi and mesh? The afore-mentioned TARPn is on deck. There is also Open-Mesh (aka BATMAN) that we haven't tried yet. Taking Raspberry PIs and/or Beaglebone Blacks, adding TNC-Xs and low cost hand held radios we could demonstrate a very small portable tactical system that can easily add geolocation with small GPS receivers.

The TNCX kits I ordered for BeagleBone Black have arrived. I have a "Beaglebox" project in the works that does WiFi warwalking. Adding a TNC? We'll see where it goes! Don Johnson has volunteered to build up the Beaglebone kit #1. Still looking for a volunteer to solder up the other one.

Here's a short list of links about Raspberry Pi and how it can be used in more general mesh networking (wifi-based).

If you have a favorite video, or find a better more updated one, then please reply and add it!

<https://www.youtube.com/watch?v=gosYvsQFkw8>
<https://www.youtube.com/watch?v=hbGXorrUcvc>
<https://www.youtube.com/watch?v=GGtwVxZ4Mto>

Mobile nodes with geolocation sounds fun. Having a tactically deployable PBX sounds fun. Deployable cloud server sounds fun.

Finally, check out <http://k4gbb.no-ip.org/docs/tndpi.html>

And now for something completely different: LoRa on 70cm. This is a low-bandwidth mode that is gaining a lot of attention and traction. So, I bought two LoRa 433MHz transceivers from Adafruit (RFM96W) along with SMA connectors to put in a decent antenna. LoRa is low-bandwidth, longer range, low-power, mode designed for internet of things. I think we can find a lot of applications in amateur radio with LoRa mesh networks. I showed them around at the October PARC meeting and everyone agreed they were tiny and cute.

Read more about this particular board here: <https://www.adafruit.com/product/3073>

Watch this video and see what you guys think. These students put together a LoRa mesh network. <https://www.youtube.com/watch?v=EdejQkTdc6o>

An upcoming open source project is Mesh Point. I posted about it on Facebook but here's the homepage again.

<http://www.meshpoint.me/>

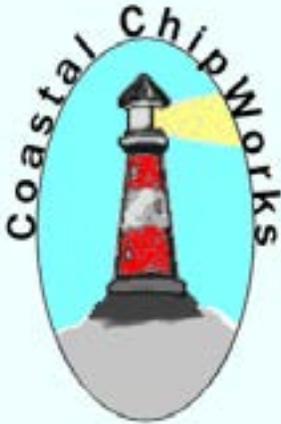
"This project emerged from a need to quickly set up reliable internet hotspots in transit camps for Syrian refugees in Eastern Croatia. We were doing that with a purpose of enabling the refugees to get in touch with their loved ones or access information that they need for their journey, and to enable volunteers and aid workers to coordinate their actions."

They're 2.4GHz but this project looks like it could be modified for ham bands. They are looking for more developers and designers and experimenters. They're going to have some sort of Kickstarter or launch "coming soon". You can sign up for their interest list on their website.

If you have AREDN gear, then please feel free to chime in with your experiences and what you're currently doing. I approved the addition of an AREDN node at the W6NWG repeater site last month.

A mesh network of two is pretty tiny but can prove out the lightweight portable concept of TNCX/Pi/HT doing something like HSMM-pi. Think tactical on-foot mesh network. We'll see where it breaks and what we can do to extend the interoperability.

Thanks to everyone that has joined and volunteered to experiment and build and learn so far! Lots more to come.



TNC-Pi

TNC-X for Raspberry Pi

Have Your Pi a la mode!

The [Official Raspberry Pi Touch Display](#) has now been released. For information on using it to build your own portable APRS Tracker using Xastir check [here!](#)

There is now a new version of the TNC-Pi designed to fit the Raspberry Pi model B+, Pi 2 and Pi 3 perfectly! See below for details!



The original TNC-Pi sits atop Raspberry Pi version B. The 9 pin D-sub connector interfaces to your radio.

TNC-Pi is a special version of TNC-X designed to interface directly with the Raspberry Pi computer. It can connect to the Pi either via the Pi's serial port, or via the I2C protocol. In the latter case, a single Pi can support multiple TNC-Pi's at the same time, since each TNC-Pi can be given a unique I2C address.

The firmware for TNC-Pi was based on the original TNC-X open source code by John Hansen, W2FS as modified by John Wiseman, G8BPQ to support the I2C protocol as well as the original serial port connection.



Here is the new Pi 2 sitting atop a Raspberry Pi version B+. It also fits the Pi 2 perfectly.

The TNC-Pi 2 is Now Here!

The TNC-Pi 2 is designed to perfectly match the form factor of the Raspberry Pi B+, Pi 2 and Pi 3 models. All 40 header pins are communicated to the top of the TNC-Pi 2 board. The standoff has been repositioned to the bottom left corner to add greater stability. The TNC-Pi 2 no longer needs any jumpers to be configured. Otherwise the TNC-Pi 2 is functionally identical to the original TNC-Pi and there have been no changes in the firmware.

The new TNC-Pi 2 is designed to fit the B+, Pi 2 and Pi 3 boards only. The original TNC-Pi will also fit the B+, Pi 2, and Pi 3 boards, but because it was designed for the original Pi version B, the form factor is not the same and only the first 26 pins are communicated through the TNC-Pi board. The original TNC-Pi will continue to be available indefinitely.

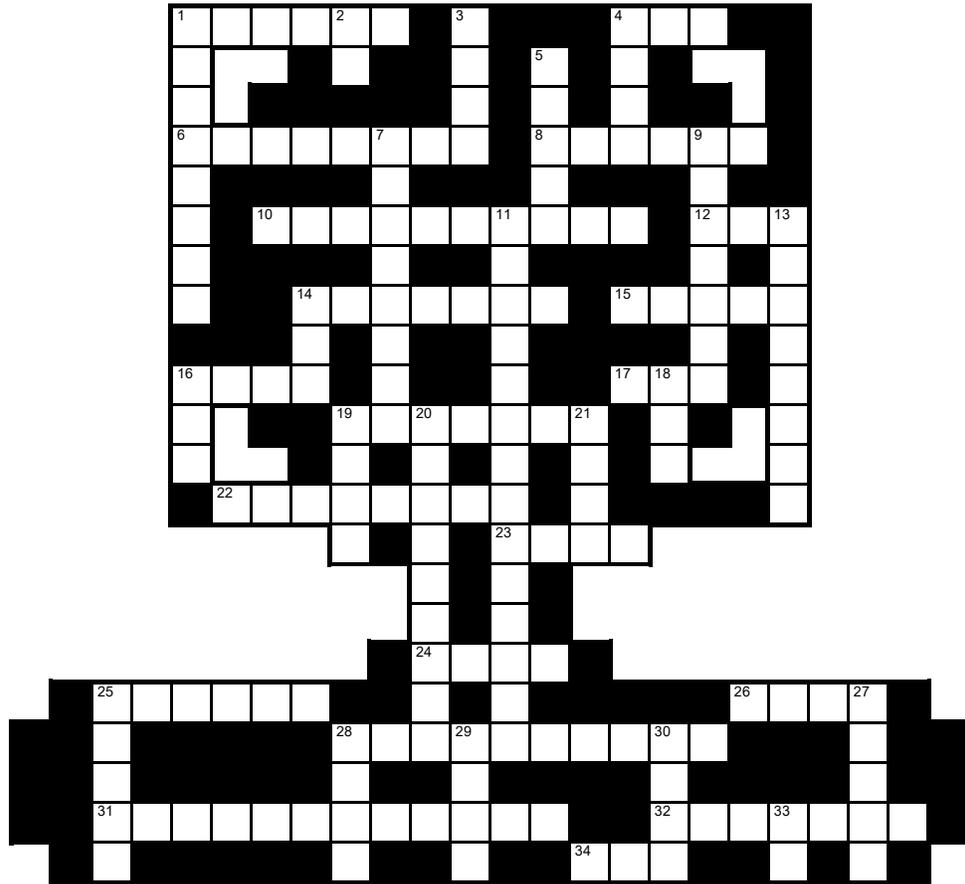
Interested in APRS tracker with Xastir?

Here's a link to details and a demo:

<http://tnc-x.com/RPiMonitor.htm>

Across

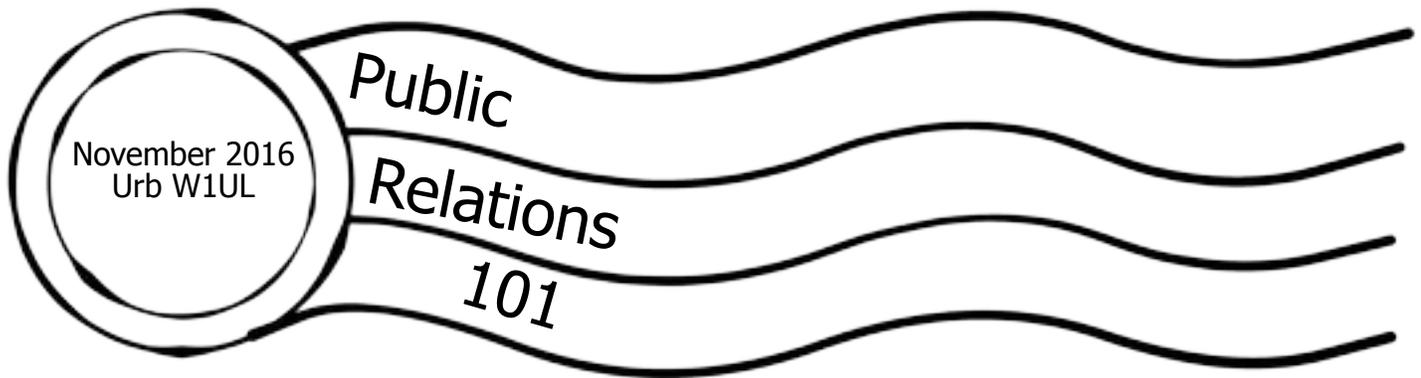
- 1 What the letters seem to come from on the screen (6)
- 4 CD follower (3)
- 6 Episode IV: "Etiquette and _____" (8)
- 8 Admission (6)
- 10 Also known as Clover Key (7,3)
- 12 Air rifle ammo (3)
- 14 If it's useful, it must have some _____ (7)
- 15 Commonly known as a line (5)
- 16 A standard for defining generalized markup languages for documents (4)
- 17 Acronym for a computer screen (3)
- 19 You watch them on TV (7)
- 22 Loss due to logistics (8)
- 23 Not RISC (4)
- 24 Clickable image (4)
- 25 Sewer line? (6)
- 26 Start of many addresses (4)
- 28 Set of ones and zeroes that makes sense. (6,4)
- 31 A mapping of letters and numbers to their identifying codes. (9,3)



- 32 Equipment that turns images into digital files. (7)
- 34 A protocol that transfers files between computers over a network (3)
- 9 Keep clicking for more options (7)
- 11 Creates the illusion of depth (8,6)
- 13 The librarian takes this long to find your book, if the book was data, and the library was a hard drive (4,4)
- 14 www.yahoo.com, e.g. (3)
- 16 language for managing data in a relational database (3)
- 18 How you find the domain name (3)
- 19 language that looks like line noise (4)
- 20 Game with a buzzer and tweezers (9)
- 21 Got a lot of these then you are a fast processor (4)
- 25 Follow (5)
- 27 Control ___ (5)
- 28 Information unit (4)
- 29 Private non-profit that has standards (4)
- 30 Speech problem (4)
- 33 Not in R, not in S, not in ___ (2)

Down

- 1 Quip, part 3 (8)
- 2 MacOS, Windows, Linux (2)
- 3 Web wouldn't work without it (4)
- 4 Not CISC (4)
- 5 An orderly pile (5)
- 7 By your command, the machine understands (8)



Do You Have a Prepared Ham Radio Elevator Pitch?

Do you have a ham radio elevator pitch ready to be delivered on a moments notice? You're walking toward your car in the company of someone you just met. You casually mention you're a ham radio operator. Your companion asked, "What is ham radio all about?" Enter the elevator pitch.

An elevator pitch is a short summary used to quickly and simply define a process, product, service, organization, or event, and its value proposition. Wikipedia defines 'elevator pitch' as "...the idea that it should be possible to deliver the summary in the time span of an elevator ride or approximately thirty seconds to two minutes. The term itself comes from a scenario of an accidental meeting with someone important in the elevator. If the conversation inside the elevator in those few seconds is interesting and value adding, the conversation will either continue after the elevator ride or end in exchange of business cards or a scheduled meeting. A variety of people, project managers, salespeople, evangelists and policy-makers commonly rehearse and use elevator pitches to get their points across quickly."

Why does ham radio exist? Your answer to this question might elicit, "hams frequently provide communications when all forms of commercial communications are unavailable, such as in natural or man-made disasters."

Getting to the crux of the ham radio mystique you continue, ham radio is many things to many people, which is a great starting line in your pitch.

Don't try to be all things to all people, stick with the aspects of ham radio you enjoy and have passion and expertise. If you're a DXer, tell the story of why you're a DXer, do not try and explain the allure of VHFing, contesting, or moon bounce.

W1UL's Elevator Pitch

Ham radio primarily exist because hams frequently provide emergency communications when commercial forms of communications are unavailable, such as in natural or man-made disasters. The great thing about ham radio is that it is many different things to many different people. My favorite ham radio activity is what we call DXing. DX was originally meant contacting distant stations. Now DXing is the pursuit of contacts with countries you haven't previously worked. I first became interested in DX when I was about 15 years old when I was asked by a marine in Guantanamo Bay Cuba to relay a message to his family in New York City. His wife had just presented them with a brand new granddaughter. This was my first contact outside the United States other than Canada. A few weeks later I woke up one night about 3 AM with a painful toothache, I turned on my equipment to see if anyone was on the air at this hour. At this point, I had never contacted a station west of the Mississippi River. Without touching any of the dials there was a station in Arizona calling CQ which meant he was seeking a contact with anyone. With trepidation, I called him and back he came. After our contact, I was tuning around and there was a station in Washington state. A contact with him was followed by a contact with California. I was so excited I totally forgot my toothache. On that glorious night I learned that long distance communications, on the band I was using, was only possible when both ends of the communications path are in darkness, much like the AM broadcast band. Once I absorbed that propagation reality I started getting up a three AM to get on the air. Within a short time, I had added six new states as well as Hawaii, Venezuela, New Zealand, and Australia. I was hooked and I've been a DXer ever since.

Over the ensuing decades, I have now contacted every country in the world except North Korea and they don't allow ham radio.

Epilogue

When developing your elevator pitch be yourself, it will help you memorize your pitch. Then, practice practice, and practice. When you think you have it down pat, practice a little more. Remembering back to the definition of an elevator pitch, it should be deliverable in between 30 seconds and two minutes total time. Practice your pitch at various intervals. Learn what can be taken out and what must remain.

The goal is to make it sound completely spontaneous and not rehearsed. It reminds of a sign that was hanging in a financial research department that I managed, "Sincerity is very important around here, once you learn how to fake it you have it made."

73 Urb W1UL urb@w1ul.com

Please check out my VE test preparation website

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PARC Picnic!

17 September
2016

The annual club picnic was held by Palomar Amateur Radio Club on 17 September, 2016 from 10am to late afternoon at San Dieguito Park, Area 4. Parking was \$3 a vehicle and there was a talk-in on 146.730. A highlight of this year's picnic was an innovation in prizes with Hackerboxes making their debut. Participation points earned by the membership throughout the year were converted into tickets for the prize drawing. Gayle K6GO won two month's worth of Hackerboxes. Dale KG6WGO and Michael N6PIH won one Hackerbox. Tom KI6IET won a Baofeng UV-5R V2+. Greg KI6RXX and two others won quality flashlights.



ABOVE, DRAWING WINNERS.

AT RIGHT, COLLECTION OF ANTIQUE RADIOS FOR DEMONSTRATION AND OPERATION.



MANY THANKS TO MIKE N6PIH FOR GRILLING UP SOME AWESOME BURGERS AND DOGS



A TRANSMITTER HUNT WAS GREAT FUN FOR ALL WHO WENT SEARCHING.

November 2016
Mike N6PIH

The Best PARC Picnic Ever... Again!

My first PARC Picnic was in August 2015. And, I was blown away! The food was awesome. Everyone was laughing and telling fun stories. The HF station was up and running. And, I tried Radio Direction Finding (RDF) for the first time. Brian, AG6CF, showed us his compact Yaesu VX-3 HT and I was amazed. I knew I had to have one. And, just when I thought it couldn't get better – it did. I won a raffle prize for an HRO gift certificate! And yes, I used it the very next day as soon as HRO opened to buy my own VX-3!

So, when August 2016 passed and I hadn't heard any announcement about a 2016 PARC Picnic, I was bummed and figured that the Club just couldn't make it happen. Then, in September Joe announced the 2016 PARC Picnic date, and I knew I wouldn't miss it! I didn't think the picnic could possibly be better than last year. But, it was. And, in many ways! Firstly, the Board intentionally delayed the picnic to September hoping the weather would be cooler. And, it was. It was very comfortable weather and perfect for a picnic. The HF station was up and running again, and we even helped a NPOTA activator. I tried RDF again this year. But, this time I actually found the hidden transmitter! It really works! Then, it was time for the raffle. But, it was different. Joe explained to all that instead of HRO gift certificates, Hackerbox subscriptions would be a raffled off. And, as it turned out, I won one of them!

When I received it, I was inspired with the idea of trying to give back to PARC to say "Thanks!" for giving me so much in the way of friendship, learning, and fun. So, I posted some pictures and descriptions in our PARC Facebook page showing the unboxing and initial steps on my Hackerbox project. And now, I'm including them here.



DAY 1: Receiving the Hackerbox
"10/3/16 - Guess what arrived in the mail today? At this year's PARC picnic, a few of us won the raffle prize of a Hackerbox. A cool new idea from Joseph Peterson! Well, here's mine. To share this fun, I'm going to take pictures and document my progress with this from the unboxing thru the building and finally with the finished item. I'll post here along the way. But, I'm also going to write an article to submit for our SCOPE. It's kinda my way to give back to the club that's given me so much already. So, first set of pictures tomorrow. Stand by..."

DAY 2: The Unboxing

"10/4/16 – This is the unboxing of my Hackerbox. The package was stuffed full of parts! And apparently, it follows a Halloween theme. The card points to the website for instructions. So, that's what I'll do tonight and report back tomorrow."





Day 3: Introducing Arduino

"10/5/16 – Hmm...this project took an unexpected turn for me. As excited as I am, I imagined I'd run through this project in record time. But, right out of the gate, I find that I need to pause and study/learn about Arduino. This project uses 3 Arduino Pro Mini modules and the Integrated Development Environment (IDE) software needs to be downloaded.

I'm not familiar with this. But, that's ok. When I was 10, I got a Revel model of the USS Nautilus submarine. In all my excitement, I built it completely in about an hour. That was a fun hour! But, I robbed myself of stretching that fun out longer, improving my skills, and learning even more. So, I'll learn from that experience and slow down here. On that note, I'll post again when I reached the next significant point."

Right after my day 3 post, my focus shifted to the California QSO Party, installing my FT-857D mobile rig in my truck, the BSA/ARRL Jamboree On The Air (JOTA), teaching the Boy Scout Radio Merit Badge, learning archery, creating my "garb" for the Escondido Renaissance Faire, designing my first Yagi and my first Moxon, and a few other fun distractions. But, I'm returning now to finish this Hackerbox and submit another article on the actual build and operation. So, check next month's SCOPE to see how it turns out.

A Call for More Scientific Truth in Product Warning Labels

by Susan Hewitt
and Edward Subitzky

As scientists and concerned citizens, we applaud the recent trend towards legislation that requires the prominent placing of warnings on products that present hazards to the general public. Yet we must also offer the cautionary thought that such warnings, however well-intentioned, merely scratch the surface of what is really necessary in this important area. This is especially true in light of the findings of 20th century physics.

We are therefore proposing that, as responsible scientists, we join together in an intensive push for new laws that will mandate the conspicuous placement of suitably informative warnings on the packaging of every product offered for sale in the United States of America. Our suggested list of warnings appears below.

WARNING: This Product Warps Space and Time in Its Vicinity.

WARNING: This Product Attracts Every Other Piece of Matter in the Universe, Including the Products of Other Manufacturers, with a Force Proportional to the Product of the Masses and Inversely Proportional to the Distance Between Them.

CAUTION: The Mass of This Product Contains the Energy Equivalent of 85 Million Tons of TNT per Net Ounce of Weight.

HANDLE WITH EXTREME CARE: This Product Contains Minute Electrically Charged Particles Moving at Velocities in Excess of Five Hundred Million Miles Per Hour.

CONSUMER NOTICE: Because of the "Uncertainty Principle," It Is Impossible for the Consumer to Find Out at the Same Time Both Precisely Where This Product Is and How Fast It Is Moving.

ADVISORY: There is an Extremely Small but Nonzero Chance That, Through a Process Know as "Tunneling," This Product May Spontaneously Disappear from Its Present Location and Reappear at Any Random Place in the Universe, Including Your Neighbor's Domicile. The Manufacturer Will Not Be Responsible for Any Damages or Inconvenience That May Result.

READ THIS BEFORE OPENING PACKAGE: According to Certain Suggested Versions of the Grand Unified Theory, the Primary Particles Constituting this Product May Decay to Nothingness Within the Next Four Hundred Million Years.

THIS IS A 100% MATTER PRODUCT: In the Unlikely Event That This Merchandise Should Contact Antimatter in Any Form, a Catastrophic Explosion Will Result.

PUBLIC NOTICE AS REQUIRED BY LAW: Any Use of

This Product, in Any Manner whatsoever, Will Increase the Amount of Disorder in the Universe. Although No Liability Is Implied Herein, the Consumer Is Warned That This Process Will Ultimately Lead to the Heat Death of the Universe.

NOTE: The Most Fundamental Particles in This Product Are Held Together by a "Gluing" Force About Which Little is Currently Known and Whose Adhesive Power Can Therefore Not Be Permanently Guaranteed.

ATTENTION: Despite Any Other Listing of Product Contents Found Hereon, the Consumer is Advised That, in Actuality, This Product Consists Of 99.9999999999% Empty Space.

NEW GRAND UNIFIED THEORY DISCLAIMER: The Manufacturer May Technically Be Entitled to Claim That This Product Is Ten-Dimensional. However, the Consumer Is Reminded That This Confers No Legal Rights Above and Beyond Those Applicable to Three-Dimensional Objects, Since the Seven New Dimensions Are "Rolled Up" into Such a Small "Area" That They Cannot Be Detected.

PLEASE NOTE: Some Quantum Physics Theories Suggest That When the Consumer Is Not Directly

Continued on page 13

27 October 2016
Paul KB5MU

SANDARC Meeting Report

On October 27 SANDARC, the San Diego Amateur Radio Council, held its quarterly meeting of delegates from the amateur radio clubs in the county. The meeting was only 35 minutes long, but several items were discussed.

The minutes had already been published online, so they were approved unanimously with no discussion. The treasurer was away on a trip, so no treasurer's report was available.

Scholarships

SANDARC Chairman Joe Acevedo N6SIX reminded delegates of Gayle Olson K6GO's presentation at the previous meeting about the possibility of local clubs setting up one or more scholarships through the ARRL Foundation. Delegates were to have asked the clubs whether they were interested in participating in a joint scholarship fund with other clubs, or in creating their own separate scholarships. There were not many responses. EARS prefers to pool money with other clubs. PARC has mainly discussed creating a separate fund of its own. REACT has already voted to donate \$100 to a joint fund. The DX Club is in general agreement with scholarships, and would like to specify that the recipient be a young DXer. Joe N6SIX again asked the delegates to get responses from their clubs on this question.

SANDARC Secretary

The position of Secretary on the SANDARC Board is vacant, and the Board has voted to leave it vacant until the coming elections in April. Vice Chairman Bill Metzger W6RGS will continue to take minutes in the meantime.

Delegate Access to the SANDARC Web Site

Bill W6RGS reminded the delegates that he had sent out by email a request that delegates register for login access to the SANDARC web site. In the past the only item on the web site that was restricted access was the roster of delegates, with contact information. Now, the minutes of both Executive Board and Council meeting minutes

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Prior training or experience in the telecom or related fields preferred; Morse code ability; 12 gpm preferred, but will consider those with Morse aptitude. Minimum touch typing speed of 30 wpm required.

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ELECTRICAL & ELECTRONIC ENGINEERS

You will design, modify, build, and test electronic equipment to solve unique problems. Responsibilities include planning, scheduling, specification preparation, materials selection, and detailed design of equipment. BSEE and/or experience in electronic testing, communications, or RF required. Military or private industry experience highly desirable. (Career Staffing #41)

- Research, develop, and install specialized electronic systems and hardware
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Fields of involvement include electrical/electronic engineering, antenna applications, signal processing, systems engineering, aeronautics, and communications. Must have at least a BS degree (advanced degree desirable) and at least 3 years experience in:

- Signal intelligence technology
 - Advanced communications technology and system design
 - Operations research/simulation of SIGINT and communications systems
 - Antenna theory and design
 - Electrical/electronic engineering
- (Career Staffing #53)

COMPUTER SECURITY SPECIALISTS

If you have a strong academic background in computer science and sharp analytical skills, the Central Intelligence Agency can offer you a challenging career opportunity in support of its computer security program. In this vital position, you will be involved in the development and implementation of comprehensive information systems security programs. You will work with state-of-the-art computer system architecture, data base management systems,

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- communications networks and communications software, and office automation projects. To qualify, you should have an academic background and practical experience in any of the following areas:
- Operating System Internals—OS/VS MVS, VM/370, VAX/VMS or other comparable experience
 - Minicomputer System Internals
 - Communication Networks
 - TSO, CMS, JES2/JES3
 - DBMSs—IMS, IDMS, CICS
 - Computer hardware/software security

You must also have a Bachelor's degree in Computer Science or Management Information Systems complemented by related work experience. (Career Staffing #30)

COMMUNICATIONS SYSTEMS ENGINEERS, PROGRAMMERS & ELECTRONIC ENGINEERS

Should have at least 5 years experience in one or more of the following:

- Large business telephone PBX systems
- Integrated voice/data networks
- Data communications and protocols
- Fiber optics systems
- Tech control and comcenter design
- Local area networks
- Large-scale systems integration
- Packet switching
- Message switching
- HF radio
- VHF/UHF microwave transmission
- Satellite communications
- Microprocessor applications
- COMSEC/TEMPEST
- Project management
- Intelligent terminals
- Facilities engineering

Positions require at least a BSEE or BSCS (MS desired).

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are also posted in the delegates-only area. Despite this, only 10 delegates responded to the call to register for a login, and only half of those followed through to actually log in and check that they had access. The Website Advisory Committee (WAC) still wants the rest of the delegates to register for a login. Any web site questions may be directed to wac@sandarc.org.

Convention Club Questionnaire

Joe N6SIX reminded the delegates that he had mailed out a set of questions about the convention to be put to each member club. Responses were needed by October 10, so that the results could be discussed at the Executive Board meeting on October 12. Only three clubs responded in time, and one more responded on October 27. The quick summary of those few responses is that every club wants there to be a convention, and no club wants to participate in doing the work. Since kicking off a convention effort involves committing tens of thousands of dollars, and a significant volunteer effort, the Board was not comfortable making a decision under these circumstances. The Board has voted to table the decision until the election, so that the new Board can decide.

Volunteer Exam Coordinator

VEC Chairman Greg Smith N6NYX reported that the VEC awarded a plaque to Harry Hodges W6YOO in honor of 30 years of VE team leadership. He also reported that a new volunteer has been found to "do the batch files" each Sunday between the weekend's exam sessions and the FCC's 5am Monday deadline. It reportedly takes ten or twenty hours to get the batch files figured out. More volunteers to serve as backups for key VEC functions are needed, and can email n6nyx@arrl.net.

SANDARC-VEC has created its own policies and procedures document, which is designed to be used as an addendum to the ARRL Volunteer Examiner Manual. Usually things are routine, but there are "occasionally doozies." In several recent cases, an applicant tried to use an existing FRN in the name of a business (not permitted). Another recurring issue is walk-ins at an exam session connected with a specific licensing class (each team leader is to decide a policy and publish it on their web page).

The Question Pool Committee of the National Conference of Volunteer Examiner Coordinators is always in need of additional help, especially technical people. Each question pool is reviewed on a four-year cycle, and usually a dozen or more changes are made each time.

ARRL Section Manager

ARRL Section Manager David Kaltenborn N8KBC gave a brief listing of upcoming events, including CQ World Wide SSB contest, ARRL Sweepstakes, Operating Day at Fry's on November 6, and an ARES hospital drill on November 17. The section has a web page at <http://sdg-arrl.org> (but the calendar isn't quite up to date) and a Facebook page at <http://www.facebook.com/arrrlsandiego>.

Operating Day at Fry's

Joe N6SIX reported that 14 groups have signed up to be at the San Diego Fry's on November 6, and a handful of groups at the San Marcos Fry's. The media has been alerted. In San Diego, a mobile installation clinic will be held and the 449.440 MHz repeater group will be cooking hot dogs. Groups can still RSVP to participate. This Operating Day is on Sunday, because the Fry's parking lot was busy with an electronics recycling event on that Saturday.

Holiday Celebrations

Joe N6SIX polled the delegates for their club's holiday plans. All twelve of the clubs represented had something planned. Most were planning a potluck party of some sort. A few had planned a dinner at a restaurant. Many clubs plan to give away prizes, including radios. Several clubs plan to make "Ham of the Year" awards. Joe suggests that clubs advertise their holiday party plans at Operating Day.

Adjournment

The next meeting of the delegates will be in January, when the nomination process starts for the elections.

Central Intelligence Agency



Washington, D.C. 20505

1935 Plaza Park Oaks, CA 92058
PH: (888) 883-2872, FX: (760) 639-1799
WWW.MTCUSA.COM

5 March 1986



Dear

Your employment application has been carefully reviewed by Agency officials against our personnel requirements. Unfortunately, no vacancy has been found which would be compatible with your background and experience.

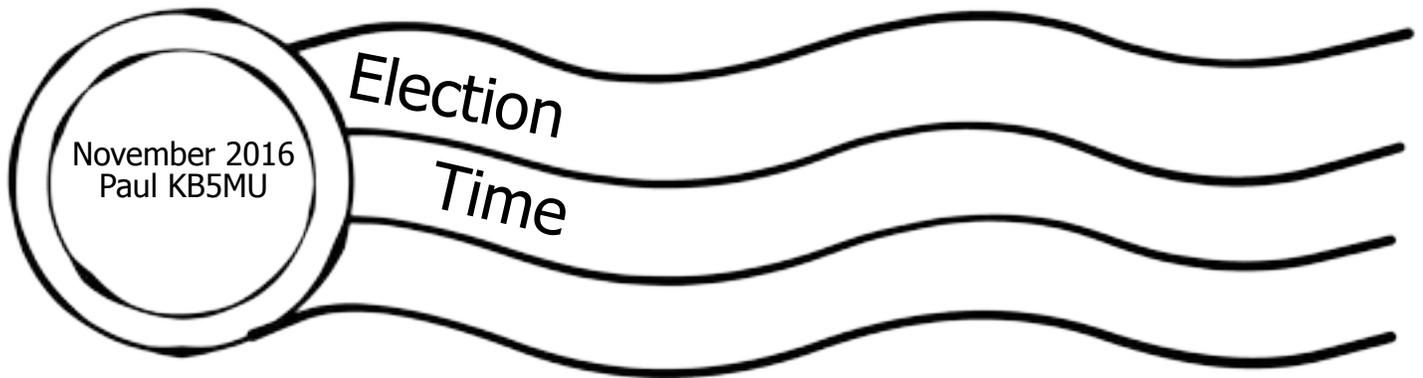
In accordance with Agency policy, we are not retaining any record of your application.

Your interest in our Agency is very much appreciated, and we regret our response to your application could not be favorable.

Sincerely,

A handwritten signature in cursive script that reads "John P. Littlejohn".

John P. Littlejohn
Deputy Director for Employment



Each year, the members of PARC elect four officers (President, Vice President, Secretary, and Treasurer) and two directors. Those six sit on the board of directors, along with three of the standing committee chairs appointed by the President. It's time for elections again. Here's how it works.

The President appoints a Nominating Committee.

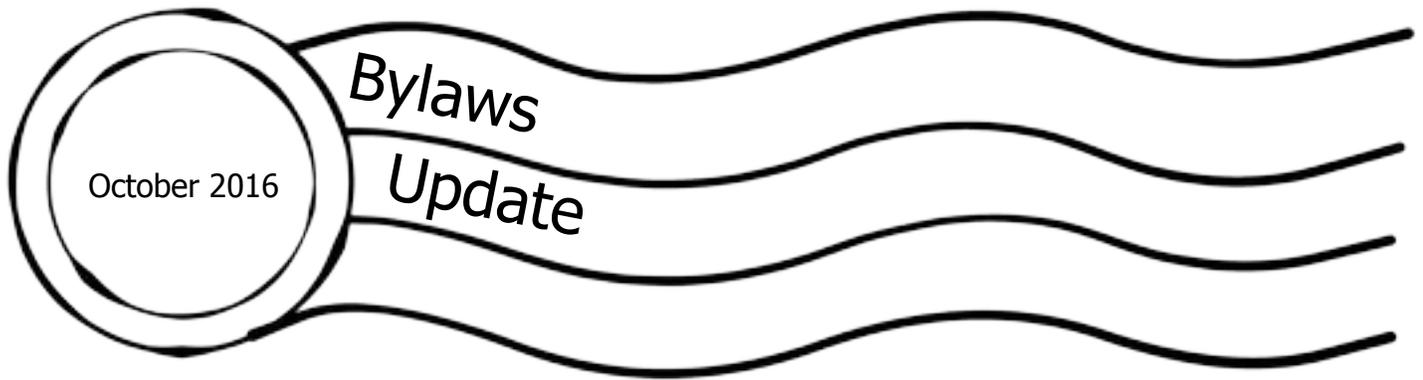
The committee's duty is to choose candidates for all the elected positions.

At the November meeting, the committee makes its report, and those candidates are nominated. Members may make other nominations at the November meeting, until nominations are closed. That's all for November.

At the December meeting, the election takes place. No new nominations are accepted in December, unless all the candidates nominated in November for some position have withdrawn. If there is more than one nominee for any position, the members vote by secret written ballot.

The newly elected officers and directors start their term at the end of the December meeting.

This year's Nominating Committee is Jo Ashley KB6NMK, John Walker AC7GK, and Sandy Pratt KK6EED.



List of Proposed Bylaws Amendments

- A. Update in accordance with 501(c)(3) status. (approved at August Board of Directors Meeting)
- B. Bring membership language in line with current practice. (approved at August Board of Directors Meeting)
- C. Online Scope. (approved at August Board of Directors Meeting)
- D. Clarify effectivity of dues changes. (approved at August Board of Directors Meeting)
- E. Grammar correction to 5(c) on life memberships. (approved at August Board of Directors Meeting)
- F. Delete suggested order of business for meetings. (approved at August Board of Directors Meeting)
- G. Clarify procedure for board approval of presidential appointments. (deferred for more discussion at Board of Directors Meeting)**
- H. Define procedure for board to vote by email. (approved at August Board of Directors Meeting)
- I. Make spending thresholds variable at board discretion. (approved at August Board of Directors Meeting)
- J. Add Webmaster as a committee chair. (Needs membership approval)

Text of bylaws amendments can be found on the following pages.

Proposed Bylaws Amendment 2016-A

Purpose

To make the Bylaws compatible with the club's new 501(c)(3) status.

Discussion

The existing Bylaws specifically call out the California law for mutual benefit corporations. The club is no longer that type of corporation. This amendment eliminates references to that specific law.

In addition, the text of Section 3(a) doesn't make any sense; it quotes inappropriately from the law by referring to "this law". In fact, Section 3 doesn't do anything but repeat things already stated in the Articles of Incorporation.

Text of Amendment

Delete the entire text of Section 3 and replace with the following:

The purpose of this corporation shall be as stated in the Articles of Incorporation.

In Section 4(d), replace the text:

the California Nonprofit Mutual Benefit Corporation Law

with the following:

California law.

In Section 7(o), replace the text:

the California Nonprofit Mutual Benefit Corporation Law

with the following:

California law.

In Section 8(h), replace the text:

the California Nonprofit Mutual Benefit Corporation Law and any other applicable laws

with the following:

applicable laws

In Section 9(d)(3), replace the text:

required by Section 8210 of the California Nonprofit Mutual Benefit Corporation Law

with the following:

required by law

Proposed Bylaws Amendment 2016-B

Purpose

To make the Bylaws consistent with current practice with regard to memberships and renewals.

Discussion

The existing Bylaws evolved from an old scheme whereby every membership expired at the end of the club's fiscal year to a newer scheme in which memberships can expire at the end of any month. Remnants of the old scheme remain, encouraging members to pay prorated monthly dues to make their expiration dates line up with the club's fiscal year. This is no longer considered helpful.

The existing Bylaws set an explicit dollar amount for dues, but then give the board the power to change it. This has led to some confusion with respect to the effective dates of dues changes.

The existing Bylaws encourage members to prepay for two or more years in advance, but do not set any limits on prepayment or explain what happens to prepaid memberships when the board changes the dues.

Text of Amendment

In Section 5(a), replace the text:

The annual membership dues for both Full and Associate Members shall be \$12.00 (which shall include a subscription to the newsletter).

with the following:

The annual membership dues for both Full and Associate Members shall be set by the board.

In Section 5(a), replace the text:

The \$12.00 dues

with the following:

The dues

In Section 5(a), replace the text:

Members are encouraged to pay dues in increments of two or more years at one time. At any time after paying dues for the first year, a member may pay additional dues at the rate of \$1.00 per month in order to make his membership expire at the end of the corporation's fiscal year. Members are encouraged to do so.

with the following:

Members may pay dues for one or more whole years at a time, but not more than ten years beyond the date of payment.

In Section 5(b), replace the entire text:

(b) The amount of the annual dues may be changed from time to time by the board. Any change will be effective for the following fiscal year.

with the following:

(b) The board may change the amount of the annual dues from time to time. Any change will be effective for new memberships and renewals beginning at the start of the following fiscal year. Prepaid dues will be honored at the annual rate in effect when they were paid.

Proposed Bylaws Amendment 2016-C

Purpose

To permit the club's newsletter to be published exclusively online.

Discussion

The existing Bylaws require a monthly newsletter to be "sent" to members, with a strong implication that it is printed on paper and mailed. Since this has become cost prohibitive, we need to make it clear that online publication suffices.

Text of Amendment

Replace the entire text of Section 15,

(a) The corporation shall publish a monthly newsletter titled SCOPE. The cost of a subscription to SCOPE shall be \$3.00 inside San Diego County and \$4.00 outside San Diego County. The cost of a subscription shall be included in the dues of members. Nonmembers may be allowed to subscribe to SCOPE with the approval of the board. The board may authorize the Editor to omit publication of SCOPE for a particular month.

(b) The board may authorize the Editor to distribute the newsletter electronically. Members who opt not to receive the newsletter by mail shall be deemed to have received the newsletter electronically, and this shall satisfy all requirements for notice or publication in the newsletter specified in these bylaws. No reduction of membership dues shall apply for members who opt not to receive the newsletter by mail.

with the following:

(a) The corporation shall publish a monthly newsletter titled SCOPE.

(b) The board may authorize the Editor to publish the newsletter in any form, including online electronic distribution, or in multiple forms.

(c) The cost of a subscription to the newsletter in at least one form shall be included in the dues of the members. No dues reduction shall apply for members who opt not to receive the newsletter in such form.

(d) Nonmembers may be allowed to subscribe to the newsletter with the approval of the board.

(e) The board may authorize the Editor to omit publication of SCOPE for a particular month.

(f) Regardless of the form of publication, placement in the newsletter shall satisfy all requirements for notice specified in these bylaws.

Proposed Bylaws Amendment 2016-D

Purpose

To correct nonsensical grammar in a sentence about life memberships.

Discussion

The existing Bylaws Section 5(c) contains a sentence that doesn't make sense:

The board shall fix the amount of such dues so as to take into account in a degree suitable to the board the relative age classes such dues on accurate life expectancy factors.

This sentence is apparently intended to give the board permission to consider the age of the prospective life member when setting the cost of life membership, but aside from the admonition to use "accurate" life expectancy factors, it doesn't really impose any requirements or grant any special permissions.

Rather than try to wordsmith this sentence to be grammatical, this amendment simply removes it. The remaining sentence of Section 5(c) covers the subject adequately.

Text of Amendment

In Section 5(c), delete the text:

The board shall fix the amount of such dues so as to take into account in a degree suitable to the board the relative age classes such dues on accurate life expectancy factors.

Proposed Bylaws Amendment 2016-E

Purpose

To remove the unnecessary suggested order of business for regular meetings.

Discussion

There is just no point in listing this in the Bylaws. We don't follow it anyway.

Text of Amendment

In Section 7(b), replace the entire text:

(b) The suggested order of business for regular meetings is:

(1) Call to order.

(2) Pledge of Allegiance.

(3) Secretary's Report.

(4) Treasurer's Report.

(5) Committee Reports.

(6) Announcements.

(7) Introductions.

(8) Old Business.

(9) New Business.

(10) Program.

(11) Adjournment, followed by social period.

with the following:

(b) (reserved)

Proposed Bylaws Amendment 2016-F

Purpose

To create a defined procedure for the board to grant or withhold approval for presidential appointees.

Discussion

There has been a bit of controversy about what it means that the president makes appointments “subject to the approval of the Board”. In particular, does this mean that the board has to take explicit action to approve each nomination, or does it just mean that the board has an opportunity to disapprove each nomination?

Arguably, the plain language suggests that explicit action is required. However, common practice has been that the board doesn’t bother to pass a motion approving each appointment. This amendment makes it clear that board inaction grants board approval.

Text of Amendment

Add a new section at the end of Section 8:

(w) An appointment or designation made by the President shall be deemed to have the approval of the board upon the adjournment of the next regular board meeting, unless the board adopts a resolution withholding such approval.

Proposed Bylaws Amendment 2016-G

Purpose

To allow the board to conduct business by email.

Discussion

The existing bylaws have no provision for the board to do any business by email.

They can do business in a regular or special meeting. Meetings can be held by radio or teleconference, but they cannot be held by email because of the requirement that all participants be able to hear one another.

Alternately, they can do business by unanimous consent in writing. If you grant that email is “in writing”, then it’s possible to do business by email, but only if every single director responds (and agrees), and there’s an extra paperwork burden to archive the written consents as if they were meeting minutes. This is a very cumbersome way to do business.

Some other amateur radio organizations are more flexible. For example, TAPR’s bylaws allow the board to be continuous session “by the use of telecommunication systems”. AMSAT’s bylaws allow the board to hold “telegraphic consultations”, with requirements for notice and minutes.

This amendment simply reduces the requirement from unanimous to majority and clarifies that email counts. The requirement that the agreements be filed with the minutes is retained.

Text of Amendment

In Section 8(v) replace the text:

If all the members of the board consent in writing

with the following:

If a majority of the members of the board consent in writing or by electronic mail

Proposed Bylaws Amendment 2016-H

Purpose

To remove fixed dollar amount limits on spending without board action.

Discussion

The existing bylaws specify fixed dollar amount limits for the size of the treasurer's petty cash fund (\$25), and for the largest expenditure that can be made without board approval (\$50). After 24 years of inflation, these limits are starting to seem a little low.

This amendment allows the board to change the specified dollar amounts.

Text of Amendment

In Section 9(d)(2), replace the text:

The treasurer may maintain a Petty Cash Fund of not more than \$25.00, to be used for incidental expenses. No expenditures in excess of \$50.00 shall be made without approval by the board.

with the following:

The treasurer may maintain a Petty Cash Fund of not more than \$25.00 (or a different limit adopted by the board), to be used for incidental expenses. No expenditures in excess of \$50.00 (or a different limit adopted by the board) shall be made without approval by the board.

Proposed Bylaws Amendment 2016-I

Purpose

To recognize the club's webmaster as a standing committee chair, eligible to be designated a board member.

Discussion

The board consists of the four elected officers (President, Vice President, Treasurer, and Secretary), plus two elected directors, plus zero to three (typically three) of the chairs of specific standing committees. Originally, these three committee chairs were fixed: the editor of the newsletter, the membership chair, and the repeater chair. Later, in 1997, the repeater chairman job was split up into a Repeater Technical chair and a Repeater Site chair, and the President was given the power to designate which three of the four chairs would serve on the board, with the approval of the board.

The newsletter is discussed in the bylaws, but the newsletter editor is barely mentioned. The other three jobs are not mentioned at all, except where they are listed as standing committee chairs eligible to be designated to the board. None of them have defined responsibilities.

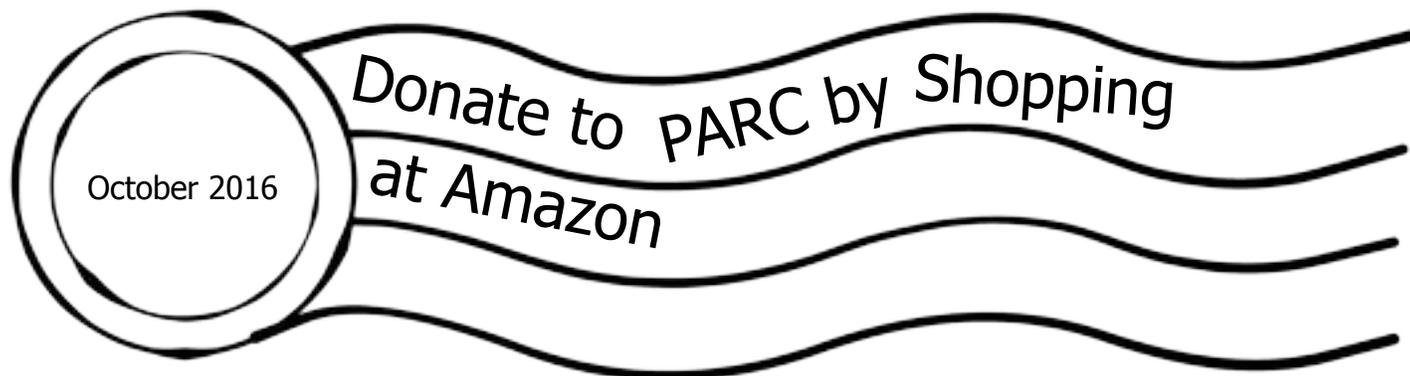
There are potentially lots of committees, and they are all important to the success of the club. Only a few of those committees operate year in and year out, and have a direct impact on most club members. Since these bylaws were written, technology has changed and now it may be seen that the club's web site is in the same category as its newsletter. Both are vital to the club, and the editor of the newsletter and the webmaster of the web site need to keep abreast of a wide variety of club activities so they can report them to the members.

This amendment adds the webmaster to the list of standing committee chairmen who may be designated to serve on the board by the President.

Text of Amendment

In Section 8(t), add the following item to the numbered list:

(5) the Webmaster



As publicized earlier this year, PARC is now a not-for-profit charity, and fund donations to PARC are eligible for tax deduction itemization for those who are eligible for such a tax itemization.

PARC also announced that in cooperation with Amazon, it is now possible to shop on Amazon at NO cost increase, and have Amazon distribute a percentage donation to PARC.

This is done by shopping on www.smile.amazon.com.

If you choose to avail yourself of this opportunity, when shopping on www.smile.amazon.com, specify Palomar Amateur Radio Club as your charity of choice for donation.

For more information:

http://smile.amazon.com/gp/chpf/about/ref=smi_aas_redirect?ie=UTF8&ref_=smi_se_ft_abt_saas



Shop Now



Want to help PARC earn more awards?

Contact board@palomamarc.org about using the club call sign in upcoming contests or operations!

We aren't that far from getting several more shiny stickers!

At right is the overall picture of our club call sign's Logbook of the World WAS record.

Notice that 20m Phone and 20m CW are pretty close to having all 50 states.

Which states are missing? See the image at the bottom of this page. We need Hawaii for 20m Phone and Nevada for 20m CW.

Think you can bag these states to give us two more awards?

The cost of the award will be covered by a donor. Want to help?

- 1) arrange for permission to use W6NWX by writing the board about your plans.
- 2) submit a log of the contacts to the board. Uploading to LoTW and application for awards will then occur.
- 3) get accolades from the club!

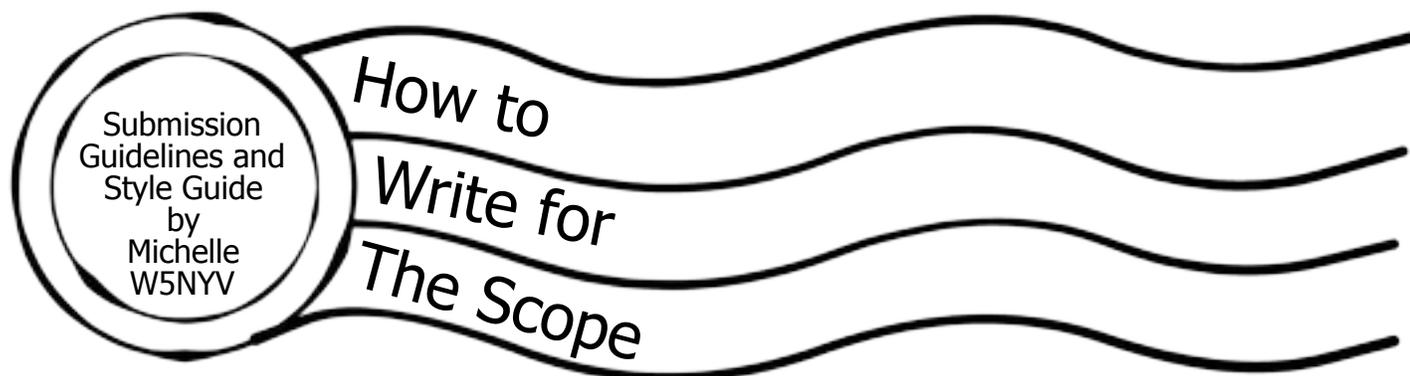
Your Logbook WAS Account (W6NWX WAS)

Account Status

WAS Award	New LoTW QSLs	LoTW QSLs in Process	WAS Credits Awarded	Total
Mixed *	0	0	50	50
80M	22	0	0	22
40M	39	0	0	39
20M *	0	0	50	50
15M	40	0	0	40
10M	6	0	0	6
CW *	0	0	50	50
Phone *	0	0	50	50
80M Phone	15	0	0	15
80M CW	13	0	0	13
40M Phone	19	0	0	19
40M CW	38	0	0	38
20M Phone	49	0	0	49
20M CW	49	0	0	49
15M Phone	23	0	0	23
15M CW	37	0	0	37
10M Phone	5	0	0	5
10M CW	1	0	0	1
Triple Play	100	0	0	100
5-Band	157	0	0	157

* = Award has been issued

20M Phone	49	<input type="checkbox"/>	The 20M endorsement sticker to be affixed to your Phone WAS certificate. Missing: HI
20M CW	49	<input type="checkbox"/>	The 20M endorsement sticker to be affixed to your CW WAS certificate. Missing: NV



Submission Guidelines

Article submissions in most modern file formats are accepted. Plain text in the body of an email, with attached full resolution photographs, is most preferred. Dropbox and several other file transfer services are supported.

Sending a fully-formatted PDF, so that the author can control formatting and exact wording, is also accepted. We use Tahoma font for body text, but will accept PDFs with other fonts. If any editing is necessary, then it will be negotiated with the author, and will then be the responsibility of the author.

For 2016, the Scope theme is postal marks and radio-related stamps. Postal theme artwork is welcome! Scans of amateur radio stamps, stories about stamps in general, interesting or quirky postal marks, fun things to do with the mail, puzzles about stamps, interesting stamp-related narratives, stories about current mail technology, QSL cards, QSL bureaus, and QSL collections are all very highly desired throughout 2016.

We want to publish articles about amateur radio and amateur radio related events and interests. Amateur radio covers a very broad swath of subjects. Contesting, technical experiments, narratives about the hobby, stories about how you became a ham, suggestions for an interview, ideas for more puzzles and games, experiences in community service, emergency communications, tours and travelogues of places of interest to amateur radio operators, mobile installation articles, ham shack articles, good operational practices, ideas for what PARC should be doing in 2016, and many other subjects are what we want to print in the Scope every month.

Articles that misrepresent a person, subject, or event will not be printed. Articles that are attack pieces, demean groups or individuals, or ridicule others will not be printed. The editorial staff

of the Scope, in coordination with the Palomar Amateur Radio Club Board of Directors, has the final say on what is published in the club newsletter. Being a member of the club does not guarantee that a submitted article will be published. No payment is given in exchange for any article. Copyright remains entirely with the original author.

Style Guide

Time: Use 24-hour time in the following format.

"We started the event at 9:00 and began tear down at 16:00."

Name and Call Sign: Name is followed by call sign with no commas.

"Michelle Thompson W5NYV began writing the article."

After the first name and call sign is listed in an article, the style is to shorten it to first name and call sign with no commas.

"Michelle W5NYV was writing all day."

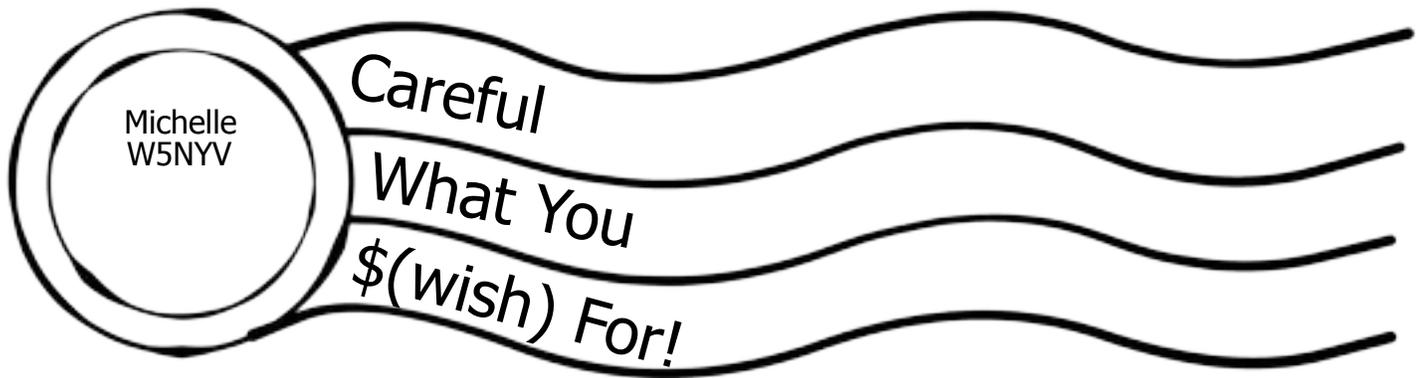
Do not use ellipses unless you know exactly how to use ellipses.

Ellipses... are not... the same thing... as a comma... or a pause...

Capitalization should be used for proper nouns. Proper nouns are the names used for an individual person, place, or organization. They are spelled with initial capital letters. For example, Michelle, New Mexico, and Boston Red Sox.

"And... that's it! That's All there is To It!"

What's the next step? Write an article, or propose one. If you need help, just ask! Mail to: scope@palomararc.org



So what is this? This is an example of cross-site scripting attacks, or XSS for short. This is when code is executed within scripts on websites by unsuspecting users, usually by putting malicious code inside of `<script></script>` tags.

However! XSS attacks may be conducted without using `<script></script>` tags. Other tags will do exactly the same thing, for example in the above image, attribute tags are substituted for network IDs in a Wifi graphical user interface tool.

In general, here's how it's done. A link to a site or image is given. The link is written to point to something that doesn't exist but is on a real site. The browser or controller for the program involved throws an error. The original attribute has the optional "onerror" tag. In many cases, functions can be run based on the error handling. In the following example, we attempt to access cookies, session tokens, or other sensitive information retained by the browser and used with that site.

```

```

Can you figure out what might happen in the XSS in some of the network names in the image above?

